Presented
to the
University of Pennsylvania
by the Class of 1916,
Medical School,
in honor of their member,

JOHN G. ARCHER

great-great-grandson of
the writer,
the first graduate of the
Medical School,
in 1768.

At Night the appointed Time for Rest & Sleep when all is still, calm & in solemn Silence there is not one anxiety one Trouble paſsed unobserved but rather exaggerated by Contemplation amidst the gloomy Shades of Night & if Sleep is disturbed it adds a greater Degree of Disturbance Nature calling for her neceſsary Supply. When doubtleſs if the critical Disturbances had appeared in the Day they might in a great Measure paſsed without Notice. After this succeeds the Crisis & as the Fever arises from the Combat between Nature & the Disease Nature having prevailed is therefore exonerated & the following Night becomes more easy —

Hippocrates hath added *plerumque* wch I apprehend rather refers to a partial or imperfect Crisis than to a total & perfect — of this many Instances might be adduced but Brevity does not allow me further to expatiate —

Quibus Crisis fit, his nox ante exacerbationem ~~[illegible]~~ gravis est subsequens vero levior plerumque Hippoc Aph. 13 Lib 2

~~may be the direful Consequence to the immortal Dishonor of him, who should be Nature's Friend & proper Times Assistant.~~

To foresee the approaching Termination of Diseases is of the greatest Moment to a medical Practitioner: of this Hippocrates the Oracle of Physic was fully sensible, when he wrote this 13 Aphorism of his 2 Book viz. When a Crisis happens, the night before the Exacerbation is troublesome, the following is for the most Part easier: which I shall attempt to explain & prove to be true, even untill this Day from the most accurate Obser: } vations of the most approved practical Writers.

It therefore becomes necessary to explain what is understood by Crisis, as there are various Acceptations of it in medical Writings, in wch it is at sometimes set forth in a lax & unlimited, at other times in a more strict & limited sense.

The Word Κρισις is Greek literally signifying Judgment, & is derived απο τȣ κρινεσθαι.

In general as Crisis is accepted among regular & intelligent Physicians, it signifies all those sudden } Changes wch are occasioned by the Efforts of Nature or the Disease, by wch we can form a Judgment of it's Termination, whether in Health or Death. The one is called a good Crisis the other a bad. Galen (a) says the sudden alteration towards a Recovery of Health is to be called a

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(a) Galen: de Crisibus Lib: 3. cap: 1. Charter. Tom: 8. Pag. 428

Crisis only by way of Eminence. However some call every Change of a disease into Health a Crisis, whether it happens suddenly or by Degrees, having no proceeding or concomitant Disturbances, nor subsequent increased Evacuations, therefore less manifest as there is a long Time in the Concoction & Expulsion of the morbific Matter, from hence arises these Distinctions of perfect & imperfect.

A perfect Crisis is preceded or attended with unusual Disturbances after wch suddenly comes on a free, laudible & sufficiently copious Evacuation according to the strength of the Disease & Quantity & Quality of morbific Matter. But if it is not sufficiently copious & only makes some considerable alteration without removing the Disease or only a pro tempore Change or Elevation, it is then called imperfect.

It may not therefore be amiss to make some Remarks, by wch we may be able to distinguish a Crisis properly so called or a perfect Crisis. It is not sufficient to say, it is good & all others are bad or at least very unsafe.

1. From the antecedent ~~proceeding~~ definition every perfect Crisis shd be by remarkable Evacuation that the morbific Matter might be carried out of the System. 2 This remarkable Evacuation shd be indicated by proceeding disturbances & especially some Signs of Concoction, as a proper Sediment in the Urine wch indicates a Preparation & Concoction of of the morbific matter: for the crude Matter of a disease cannot be changed in a Moment but by Degrees therefore large & sudden Evacuations cannot be critical in acute Diseases.

3. It shd be sufficiently copious i.e. according to the Strength of the Disease, wherefore it should be more copious in severe Diseases than in slight: for when a slight Disease is attended with profuse & large Evacuations, Part of the salutary Humors must be evacuated & thereby another Disease brot on. 4. It must be by proper Emunctories, as Urine by the Kidnies, Sweat by the perspirable Pores &c — However if the morbific Matter be purulent is should be secreted by the Kidnies from the common Mass of Blood, as they are the properest Emunctory in a perfect Crisis of this Kind, or if in the Breast per Sputum. 5. It should be at a proper Time i.e. on critical Days: for it must be supposed that at that Time Nature has concocted and prepared the Matter for Expulsion by some proper Outlet. to the Support of this, the Authority of Hippocrates, may be adduced, who says that a perfect Excretion should be on critical Days. 6. The whole of the morbific Matter should be evacuated, it may be ~~known~~ by increase of Strength; for if any remains it forms a new Diseases or brings on Returns. 7 It should be the morbid Matter only: for if salutary Humors are evacuated the Strength will not be recovered nor the Symptoms of the Disease lessened sed vice versa.

It is not ~~therefore~~ then every Change of a Disease into Health it should be called a Crisis; but it is that when the Matter of the Disease is so disposed, that at a certain Time there is a sudden Change preceded or attended with some remarkable Disturbance of the Body (6) & is accompanied with

Galen de Crisibus Charter Tom: 8. cap: 4. Pag: 406.

with some new & unusual Symptoms, either in Hearing Breathing, Sight, Easiness of Apprehension &c all wch Galen stiles critical Symptoms.(c) These are for the most Part followed by remarkable Evacuations or a Deposition of the morbid Humors on some Part of the Body, as an Efflux of Blood from the Nose, or the natural Excretions are increased, as the Sputum, Sweat or by a Diarrhoea (or by some remarkable Abscess but this is rather an imperfect Crisis) Sometimes the Crisis may happen by Vomiting, as in a bilious Fever when the Bile is putrescent or thrown in large Quantities into the Stomach. But as has been observed the more common critical Solution of Fevers is by a Diuresis or Diaphoresis, especially when they are sudden & copious & wch are followed by a Remission of the Symptoms. It is in this Sense that a Crisis is inculcated by the great & immortal Hippocrates & strongly enforced by his follower Galen, who is his best Interpreter & received & defended by Vanswieten

It now remains that we consider those ~~Disturb~~ Disturbances, which happen antecedent to, or concomitant with a Crisis & why the Night is most taken Notice of

When we consider the various Mechanism of the human Body, as far as the Researches of the most able & inquisitive Physiologists can penetrate, there still

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(c) Galen de Crisibus Charter. Tom. 8. cap: 10 Pag: 444

still remains wonders to him unknown. From our present Knowlege we are ~~sensible~~ certain the human Body is endowed with Sensibility to perceive the least Invasion of an Enemy, & strength to resist Attempts on the Wellbeing of the System. Human Nature dreads Disease & Death & is necessarily provided to defend itself & resist them vi & Armis, therefore when the Matter of a Disease is received into the System, whether in Respiration or from the whole Surface of the Body by the Absorbing Vessels &c — ~~The~~ Sense as a true Watchman instantaneously gives warning, on which ensues a Conflict between the vital Powers & the Morbific Matter being Enemies to each other, one ~~being~~ the Advocate of Health the other of Death. This Conflict is according to that Proportion, which the morbific Matter bears to the vital Powers & v. v.

When these are nearly equal towards the Height of the Disease or at its greatest Increase, there ensues a sort of equal or doubtful Combat, Nature rousing up all her abilities ~~the~~ to exterpate the invading Enemy: from this necessarily follows the greatest Disturbances till either Nature overpowers the Disease or she herself falls a Victim to its relentless Hand.

In every Fever from an internal Cause there is in some degree Horripilation, quicker Pulse & Heat, which are necessarily followed by Thirst, Pain, Inquietude, great

anxiety

anxiety untill the Cause is changed or elimenated out of the Body. When the Cause therefore is removed wch occasioned those uneasy Sensations & critical Disturbances, we are assured of a salutary Event: for when the Cause is taken away the Effects of consequence cease.

It may not be necessary at this Time for the sake ~~account~~ of Brevity to account minutely for the febrile Chills, Horripilation & Tremor in incipient Fevers, as ~~it~~ They undoubtedly proceed~~s~~ from a Constriction of the Vessels on the external Surface of the Body from whatsoever Cause — This will occasion a rapid Motion of the Fluids toward the Heart, wch will immediately propell them ~~it~~ with Rapidity & an increased Velo:city: hence a quicker Pulse & from the increased Velo:city there is a greater attrition, consequently an increased Degree of Heat &c — Age, Sex, Temperament, Kind of Life we lead, Custom, Climate &c are carefully to be considered, for the~~y~~ offered Symptoms are various & in various Degrees in each — They are the most violent in those who have arrived to the ἀκμὴ as Nature is then the strongest — However in either at stated Times, she exerts her Abilities so as most effectually to remove the the Cause wch disturbs her quiet & admitt a more equable & free Circulation &c The worst & most frightful Symptoms & greatly disordered Functions happen general a little before the Expulsion of the morbific Matter.

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Obstruction

efinition — Obstruction is the Stoppage of a Canal 17 so as to deny a Passage to the Liquid whether vital sound or morbid which ought to pass thro' it —

roximate } 108 The Narrowness of the Vessel, the Magnitude auses of the circulating Fluid or both conjointly —

emote } 109 Narrowness of the Vessel may arise from external Causes Compression, its own Contraction, or an Increase of Thickness in the Membranes wch compose the Vessel

External Compression of Vessels so as to produce Narrowness may arise from Tumors of all Kinds — Luxations Fractures & Ligatures &c —

The Magnitude of the circulating Fluid is increased by a viscosity of the Fluid or by Error Loci — this Viscosity may arise from too violent an Action of the Vessels by wch the Particles are brot into a near Contact so as to attract each other & thereby increase the Density of the Fluid — or a Lentor from inceptitude &

An increase of the Contraction of Vessels may arise from all cause which encrease the Elasticity ~~[illegible]~~ of the Fibres — from a Turgency of the smaller Vessels wch compose the greater & from a diminution of the Causes wch expands the Vessel such as Inanition &

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The Thickneſs of the Membranes tht compose the Veſsels is occasioned by every kind of Tumor in those Membranes by Callus's of any sort—

The Particles of the circulating Fluid are disposed to form a Coagulum—by Rest, Cold, frost Heat too violent a Circulation, Acids, Spirits or any coagulat. Cause—

Obstruction may take Place in any of the Veſsels in the human Body but frequently in the minute of capillary — In the arteries may arise Inflammations of the first order of particularly addapted to its own Fluid as red in the second order of Veſsels there may be a red Errore Loci or of its proper Fluid a yellow ghost in the Lymphatic Arteries may arise the yellow Errore loci or pellucid from its own Proper Fluid &c—

As to the Cure of Obstructions no general Rule can be given until it's real Cause be known — since the Causes are different & opposite to each other —— consult V Swieten on each — The Termination of obstruction is either Resolution or Inflammation

Inflamation

nition — An Inflammation is an Obstruction of any Part attended with a Fever

May the same

An Essay on inflammatory Fevers

When we take an accurate Survey of Man ye Wonder of our little World, he is found to be miraculously made & therefore termed a Mycrocosm: justly indeed! for there is a World for Contemplation, & Mysteries in it, that are beyond the Reach of human Understanding. therefore David's Acclamation, O Lord, what a Wonder hast thou made Man! Nature is mysterious, tho' her Laws are regular: she is most rational altho' we do not undestand her — To investigate Nature is the Persuit of ye Phylosopher, & I might with as much Propriety say of the Physician - the one has not a greater World of Wonders to contemplate than ye other, - & in strictness of Speech ye Physician is or should be a good natural Phylosoper else how will he be capable to account for various & frequent Phænomena — The human System is natural therefore acts & is acted upon according to natural Principles —

However difficult Discoveries of Nature may be; yet from an Assiduous Persuit of ye ingenious after Knowlege of every Sort, as well of ye human Body, as other Works of God, many excellent & invaluable Discoveries have been made, & all conducing to explain daily Phænomena. but to confine ourselves to ye Human System

The immortal Harvey hath pointed out the Circulation of ye Blood, on wch depends Health, Reason nay Life itself — Behold! the Blood dispached from ye Heart loaded with nutritive Particles to every Part of ye Body, & like a faithfull Messenger dispensing to every Limb, to every Muscle, to every Fibre its due Proportion &c

to every Gland whether for Excretion, or ye nobler Purposes of Digestion, Sensation, or Lubrication of ye Joints for easy Motion & then return to repeat its wellcome Messages. Behold! the Nerves the Couriers of Sense & Motion how accurately & distinctly they perform their Officies, who give timely Intelligence of every Sensation whether of Pleasure or Pain; but in what Manner or how Intelligences are propogated to the Sensorium Commune & then to ye Soul, whether by Osillation or an Impulse upon a subtle ætherial Fluid is a Matter wholly uncertain, altho' ye latter seems ye most rational & plausable — Not to pass over in Silence those Vessels, which keep up an Equilibrium in our System, the absorbent Veins, wch are patent in every Cavity & Interstice of ye Body to take up Fluids secreted in too great Abundance, extravasated or otherwise - they also arise from ye whole Surface of ye Body, & from thence absorb those Fluids wch become contiguous to their Mouths - they empty themselves into the Thoracic Duct, by wch this Fluid wth ye Chyle is poured into ye venal Blood - I might here mention ye Secretories & Excretories with Propriety; but I propose not to enter into a minute Disquisition of ye several Parts of ye human Body. I only meant to præmise the Observations already made, as they will be of advantage toward understanding the subsequent Essay -

Notwithstanding Man is wonderfully made, his Days are but a Span, therefore he may justly be compared to the gaudy Flowers wch bedeck ye Fields, wch in ye Morning appear in blooming Splendor & more richly attired than Solomon in all his Glory; yet before ye Sun hath finished his diurnal Course, they fade, they droop their Heads, they die: so it is with Man Yesterday he was vigorous & healthy, to Day

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a baneful Contagion gains Addmittance perhaps thro every Pore of ye Body, wch are so many Avenues for Disease & Death — Death! inexorable Death sweeps off Man by Disease & Accident as with ye Besom of Destruction.

Diseases of ye inflammatory Kind may be ranked among ye swift Meſsengers of Death, when they happen to be rapid, violent & irresistable in their Progreſs — such as Phrenitis, Angina Peripneumonies, Pleurisies, Paraphrenitis &c — Therefore, from this Consideration I have determined to attempt offering some general Observations on inflammatory Diſeases, as I apprehend their Origin & Causes are as absolutely neceſsary to be known, as ye Diseases themselves. It is from not understanding the Origin & Cause of Diseases whether they are Idiopathic & therefore accountable from ye Habit of Body, certain fortuitous Events or unavoidable Accidents, or Sympathetic & thereby arising from some precedent Disease, that many are injudiciously treated by an accustomed Rotene of Practice.

That we might better understand ye Cause of Diseases it would be neceſsary to enter into a minute Diſcuſsion of the Properties of that Fluid, wch comes in Contact with our Bodies, as well as received into ye Vesicles of ye Lungs in Reſpiration; But it must suffice that I only take Notice of ye most remarkable & neceſsary — 1. That it becomes a solvent of many Substances wch may be suspended in it whether healthful or noxious. 2. That it is subject to many Viciſsitudes from ye Effects of Heat & Cold. 3. That it is to ye Preſsure of ye Air we must attribute the Coherence of all ye Parts of Bodies. For if the Preſsure was taken

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off ye external Surface of our Bodies, wch is computed to be about 32133 lb: in a mean Proportion, ~~yet~~ as this must differ according to ye various Constitutions of ye Air, more or less according to its Density. Therefore if this Pressure was removed, that Portion of Air wch is imprisoned in our Bodies finding no resistance to its expansive Force. as ye Pressure & Resistance of Fluids are equal & contrary, it will consequently exert ye above Force, & thereby rent our feeble Frames to Pieces, & vice versa - Hannabal's Soldiers were so many Instances of this expansive Force of Air: for marching over a high Mountain, they were seized with a Vomiting of Blood, of wch many died. this proceeded from the Pressure of ye Atmosphere not being equal to ye elasticity of ye Air contained in their Bodies, which ruptured the Vessels & bro't on an Hæmoptoe & vomiting of Blood. Hence we may infer, that sudden Changes from a dense to a rare Air is very prejudicial to ye healthy & hurtful in all inflammatory Diseases, & e contrario.

Air not only acts upon all Bodies by its Pressure and Elasticity, but by ye peculiar Virtues of ye Ingredients, wch are suspended in it. Hence ye wholesome Effects of an Effluvia from verdent & flowery Meads, & ye contrary from Mines, Marshes - stagnant Lakes & Ponds of Water &c as this Heterogeneous - Fluid is absorbed by a system of Vessels already mentioned from ye whole Surface of ye Body & every Vesicle of ye Lungs, whereby it is recieved into ye Blood, thereby communicating its wholesome or unwholesome Effects, on wch depend Health or Disease.

Air as to its Effect on ye human Body in producing - inflammatory Diseases may be considered as Cold & Dry, Hot & Moist - It is a known & accepted effect of Cold to contract ye Fibres of

of our System, thereby rendering Muſcles stronger in their Action, therefore yͤ vascular System is strengthened & enabled to act with greater Force on yͤ contained Fluids. While yͤ Action of yͤ Solids on yͤ Fluids & Reaction of yͤ Fluids on yͤ Solids maintain a just Equilibrium the Fluids are attenuated Secretions & Excretions are encreased & Health preserved, but whenever yͤ Habit of Body is such, that yͤ Solids & Fluids have arrived nearly to as great a Degree of Density, & Strength as is consistant with Health, then there is Danger of Inflammatory Diseases from yͤ least Change of yͤ Air especially to Cold & Dry—

In cold Dry Air as has been observed yͤ Secretions and Excretions are encreased, consequently yͤ more fluid Parts of yͤ Blood paſs off by yͤ Emunctories & thereby rendered more denſe & from yͤ Action of yͤ Veſsels compacted closer & firmer together, therefore more liable to form Obstructions in the minute capillary Veſsels & unavoidably produce inflammatory Diseases—

Cold by shortening yͤ constituent Fibres of Veſsels—thereby diminishes their Diameters,, consequently forces yͤ Blood from yͤ Surface of yͤ Body to yͤ right Ventricle of yͤ Heart with great Rapidity, & yͤ Heart exonerating itſelf throws it into yͤ Lungs in thick Succeſsion, where it again meets with yͤ cold Air, that is recieved by the Trachea arteria in to yͤ Veſicles of yͤ Lungs & nearly in contact with it, wᶜʰ renders it more dense & nearly cōgeales: it in yͤ small capillary Veſsels—however if not it is returned to yͤ Heart with greater Velocity than usual: from whence it reiterates its Course ~~untill~~ untill it becomes so dense, that it at last stagnates in

in ye smaller Arteries, or is forced into serous or Lymphatic Veſsels. In whatever Part this Obstruction is formed so as to produce a Fever, it thence recieves its Name as Phrenitis, angina, Peripneumonia, Pleuritis &c—

But that I may not be too Prolix on ye Effects of a Cold & Dry Air, I shall ~~xx~~ proceed to consider their Opposites, wch are Hot & moist— Heat rarifies ye Air & diminishes its Preſsure on our System, therefore the Solids are relaxed & of consequence their action on ye Fluids weakened, thereby ye fluids become leſs dense & compact occupying a greater Space & distending ye Veſsels beyond their mean diameter. The Quantity of ye animal Fluids are greatly encreased when we consider, that large Quantities of Vapors arise in our Atmosphere by Exhalation & are taken into ye Blood by ye absorbent— Veins. Moisture also conduceth to weaken the Solids especially when attended with a Degree of Warmth. From too great a Quantity of Fluids & a Laxity of Solids we may reasonably deduce, that the Blood will be propelled in too large Quantities into ye capillary Arteries, thereby forming Obstructions or forced into serous & Lymphatic Veſsels, their Mouths being relaxed & distended, thro' ye Extremities of wch it cannot paſs, therefore Fevers & inflammatory Diseases succeed— But let it be remembred, that the Appearance of ye Blood is different in a Hot & moist Air, from what it is in a cold & Dry. In one it is Dense & compacted, in ye other of a lax & incohering Texture, therefore those two different Lentors mentioned by the great Boerhave in different Species of inflammatory Diseases.

I would again remark, that when a cold dense Air supervenes a moist. The aqueous Particles, wch are suspended in ye Moist are immediately frozen. It is certain from dialy Observation, that the aqueous Fluid in freezing shoots into long acuated Spiculæ similar to ye Chrystallization of Salts, therefore we may reason that the aqueous Vapors in ye air are formed into like Spiculæ — That they do freeze is evidently proven in cold Climates by letting cold dense Air rush into a warm Room, where green Wood hath been used for Fuel to ye Fire, & People have breathed for some time before — immediately after ye entrance of cold air ye Vapors, wch were before imperceptable are now seen to fall down or be precipitated in ye Appearance of Snow — In like Manner ye Moisture of our Atmosphere becomes frozen into Spiculæ by sudden Changes from a warm Moist ~~Air~~ to a cold Dense Air. These Spiculæ are recieved wth ye Breath into ye Lungs, wch irritate them & thereby produce Inflammations particularly pulmonic. Children are most liable to be affected from this Cause, as from their tender Years they are more Irritable than the more aged — This is verified every cold Season — But it must be observed that yse pulmonic Complaints do not immediately discover themselves, therefore the Justneſs of Hypocrates's Observation, which is, Diſeases are slowly formed; yet they break out suddenly —

From these Observations on ye Viciſsitudes of Air & their Effects, I would make this one Remark. If we knew particularly ye Effects of ye various Changes of ye Air on ye Solids & Fluids, we should be enabled to foretell future Diseases with accuracy, & be better capacitated to adapt suitable

Remedies

* These are only to be conquered by an herculean Hand skilfully directed the very Foundations must be erazed previous to the least Prospect of Succeſs for they are invulnerable like Achilles in any other Point.

Remedies for their Cure — Diseases are of as many Species as Men & Beasts, w^{ch} are not, nor never will be fully known. There are not more Monsters in one than y^e other. From the different Constitutions of y^e air, Habits of Body & present Diseases a Multiform Monster is generated. If the seven Headed Hydra cannot be instanced in y^e natural World; yet in that of Disease there are many. *

Previous to an Account of y^e Causes, diagnostic & prognostic Signs, & general Treatment of inflammatory Fevers, it is neceſsary that ~~a~~ Definitions of an Inflammation & Fever should be given —

An Inflammation is a Preſsure & Attrition of y^e red arterial Blood in y^e smallest Veſsels produced by y^e Motion of y^e rest of y^e Blood thrown into violent Commotions & forcibly propelled into y^e minutest Veſsels.

From this Definition we may infer, that an Inflammation may happen in y^e Extremities of capillary Arteries, in those Veſsels w^{ch} carry serum or Lymph, or in any small Veſsels w^{ch} recieve y^e Particles of Blood by a Dilatation of their Mouths, or any dense Fluid; but cannot convey them thro' their Extremities — therefore the Seat of Inflammations may be in any Part of y^e Body w^{ch} is vaſcular.

A Fever is a preternatural Heat of y^e whole Body, or at least y^e principal Part: when attended with an Inflammation it is distinguished by y^e Name inflammatory.

Huxham in his Eſsay on Fevers has reduced them to three Caſes, w^{ch} generate simple Ephemera & these continued too long & accompanied with tense elastic Solids & an over Quantity of dense compact Fluids are productive of various inflammatory Diseases

Diseases; as Huxham hath pointed out Fevers in ye most rational method from ye most simple to ye more complex & inflammatory, he therefore claims our particular Notice to whom I refer you.

rocatartic Causes
f inflammatory
Fevers ----

The most fundamental Causes of Inflammatory Fevers are ye Effects of ye Air already mentioned, as it strengthens or relaxes ye Solids, or encreases ye Quantity of ye Fluids, & whatsoever irritates the nervous or vascular System to spasms or violent action, under this may be comprehended excessive Passions of the Mind especially Terror & Anger &c — The abuse of Women or Wine, or spiritueous Liquors of any Kind, a Suppression of critical Sweats, a Return of exanthematous Eruptions, an absorption of purulent, acrid Matter, or acrid stimulating Fluids, acrid & salt Aliment, excessive Watching, Intemperance of all Kinds, Inflammations, Tumors, Abscesses, Contusions, Extravasations, Lacerations, Fractures — &c — as to the Causes of ye particular Species of inflammatory Fevers I refer you to a particular Treatment of each —

Diagnosis of
inflamy Fevers

The general Signs of inflammatory Fevers are Coldness particularly of ye Extremities, a Pain in ye Back & Loins, a shivering, a Subsidence of ye Blood Vessels on ye Extremities, a pale & livid Countenance, dry Skin, a continual Palpitation of ye Heart, an Anxiety of ye Præcordia, difficult Breathing, Inquietude, a weak, small, tense Pulse, Suppression of Perspiration, a Nausea & Inclination to Vomit, Costiveness & thin watery Urine — These with their speedy Progress determine & point an acute inflammatory Fever.

Prognosis

The Event of inflammatory Diseases is to be determined from their being more or less acute, some terminating by a

a Crisis on ye third, fourth, seventh or eleventh Days more or less ye last of wh. if they survive there is hopes of recovery —

Methodus medendi } — In ye Cure of inflammatory Fevers only a few medicines well timed are necessary — The Operations of Nature are carefully & particularly to be observed: for her Indications are the most likely to succeed, consequently to be assisted, if need requireth; yet with ye greatest caution. However if Nature is overloaded with too great a Quantity of Fluids, for ye Capacity of ye Vessels, so that she cannot act regularly, she is immediately to be exonerated, therefore the first Indication is to lessen ye Fluids by V. S.

As to ye Quantity of Blood to be taken this is to be determined from ye Strength of ye Patient, & his Pulse, the Intenseness of ye Fever & Vehemence of ye Symptoms &c Galen & some of his Co-temporaries bled ad Diliquium Animi but this is an indeterminate Sign as Diliquia depend on ye Contractility of ye Vessels: for should ye Blood be drawn from a large Orifice faster than ye Vessels contract a Diliquium would inevitably ensue, because ye Blood would not be sent to ye Head in due Proportion, therefore a Diliquium might take place before there was a Sufficiency of Blood drawn away, & thereby prove Detrimental by setting ye Blood in more violent Commotions. However it is necessary to bleed freely, still keeping in Mind, that it is safer to take away too little than too much at a Time especially when we consider yt ye Operation may be repeated, as often as indicated untill

(Instead of what is between these two Marks †,–†† in yᵉ follow:
:ing Page read yᵉ subsequent Paragraph.)

† Therefore to dilute &c yᵉ Blood appear to be second Indication for from yᵉ too strong & forcible Action of yᵉ Solids yᵉ Motions of yᵉ Fluids are accelerated thereby generating a greater Heat, dissipating yᵉ serous Part or forcing it off at yᵉ several secretory Organs & elaborating yᵉ Blood into a dense compact Fluid. By this Process yᵉ Gluten or coagulable Lymph is communuted & yᵉ Particles forced into nearer Contact with each other whereby they unite & render yᵉ whole Mass of Blood more thick dense & visid there:fore yᵉ Necessity of Diluents to keep the glutinous Par:ticles at a sufficient Distance so as to preserve a due State of Fluibility, to supply yᵉ continual waste of serous Lymph & in a Degree to prevent yᵉ too violent Impetus or Force of yᵉ Solids: for yᵉ more dense any Body is yᵉ greater Force can be communicated to it, therefore yᵉ denser any Fluids is the greater Impetus it will receive from yᵉ Action of yᵉ Solids. Relaxants to take off any spasmodic Strictures & to lessen yᵉ Strength & Action of yᵉ Solids in general &c will succeed better when moderately warm. Refrigerants to allay yᵉ febrile Heat & assist in diluting & relaxing &c.

ye Intention succeeds by allaying ye too rapid Motion of ye Blood, thereby easing ye Pain Heat & Difficulty of Breathing — If these abate not it is a sure & certain Indication for repeating ~~Bleeding~~ ion.

The sole Advantage in Bleeding does not only consist in lessening ye Quantity & Velocity of ye Blood; but it also makes Room for ye Admittance of Diluting relaxing ~~&~~ refrigerating & other medicated Liquors &c.t Therefore to dilute &c ye Blood appears to be the second Indication: for from the violent Velocity of ye Blood, it is heated, & from the too forcible action of ye Solids, it is elaborated into ~~to~~ a dense compact Fluid, the serous part being dissipated & ye Gluten or coagulable Lymph thereby rendered more viscid, therefore ye necessity for Diluents to keep ye Blood in a due State of Fluibility & to supply ye continual Waste of ye serous Lymph tt It is ye serous Lymph wch disolves ye Glutenous Part of ye Blood & keeps it fluxile, & in due Proportions the Blood appears a uniform homogeneous Fluid; but when ye serous Lymph is carried off by ye Emunctories in to great Quantities, as in inflammatory Fevers ye Blood appears of a viscid Texture wth a Buff or glutenous Surface —

Huxham observes that Tension of ye Fibres &c: is naturally Concomitant to great Velocity, Heat & Density of ye Blood wch always attend or rather are ye very Essence of inflammatory Fevers — quiescent nitrous Diluents also answer this End, as well as ye former by relaxing ye Fibres & Vessels, from wch the Blood will

‡ Here it may be neceſsary to take some Notice of ye Rad: Seneka recommend by Mr. Terment in ye Edenburgh Medical Eſsays as an ad:mirable Medicine in all inflammatory Diseases & by some of this Country from a series of Practice attest that Cort: Peru: is not a greater Specific in Intermittents than ye Seneka in inflammatory Diseaſes. It attenuates & diſsolves the Viſcidity of ye Blood thereby promoting a regular Mixture from whence it proves Diaphoretic, Diuretic, laxitive & sometimes Emetic & a very good Expectorant — The Dose is ʒß in Powder & in Decoction when prepared by boiling ℥ij in ℔ij of Water to a ℔j three Spoonfuls every six Hours — the Decoction is said to answer best — When used to promote Expectoration Oxym: Scillit: ʒj should be added to ye above wch will cooperate to answer the Intention & hereby proves very valuable.

will be rendered more fluid less Viscid, less rapid & consequent:
:ly less hot; wch are of very great importance in ye Cure of acute
inflammatory Fevers. Obstructions are hereby removed
in ye small capillary Vessels, & a gentle & universal Sweat
ensues wch generally proves critical & salutary — It may
be of Consequence to know that a profuse Diaphoresis
in ye Beginning of inflammatory Fevers is prejudicial,
as it carries off the more fluid Parts of ye Blood, or that Part
on wch Fluidity depends, therefore this Evacuation is not
to be encouraged or promoted too freely: for ye same Reason
profuse discharges by Stool or Urine are hurtful; yet
are to be encouraged or promoted in Moderation.

The Intentions of Diluting & Relaxing may be
carried on or assisted by warm Baths & emollient Fomen-
tations, cooling emollient soluble Clysters. The latter of
these are of peculiar Advantage as they dissolve, & bring
away indurated Fæces & serves as ~~an~~ internal Baths
to ye Pelvis & Abdomen, thereby relaxing the abdominal
Viscera & other Parts from their Vicinity to ye Colon — These
methods of Bathing, Fomenting & Clystering are of ye greatest
Advantage in taking off ye universal Spasm in all in:
:flammatory Fevers, & are very useful to relieve ye Head and
Præcordia — Nitrous Medicines claim a particular Notice
in all inflammatory Cases, as they are of great Service
in forwarding ye Mixture of ye aqueous Fluid thrown into
ye Blood with ye Gluten & thereby reducing it to its homo-
geneous Appearance & allaying ye febrile Heat. #

Vomits,

† Proper & gentle Evacuations whether by natural or artificial Outlets are of no small Consequence in acute inflammatory Diseases as acrid, stimulating Substances may thereby be thrown out of ye System whether from ye whole intestinal Canal a Ventriculo ad Rectum or any of ye Veſsels such as ye arterial, venal, serous, lymphatic, lacteal absorbent &c therefore,

‡ The other Evacuations such as sweat & Urine &c are to be promoted gently & cautiously not with large Portions of acrid, hot & stimulatg Medicines wch will only encrease ye Motion & Heat of ye Fluids & consequently ye Disease. This is rational & just but not universally for that wch is found to be the Effects of one hot stimulating Medicine must not be prædicated of all wch are hot & stimulate some thicken & coagulate ye Fluids others diſsolve their dense & viscid Parts & promote a regular Mixture & Secretion – therefore it would certainly be an irrational Practice to give Medicines wch would either coagulate ye Fluids or stimulate the Solids to a greater Degree of Action & thereby encrease the Motion & Heat of ye Fluids if these were their only Effects but when some of them are found to answer other more valuable Purposes wch are absolutely neceſsary previous to eradicating the Diſease they are then not to be with-held such as diſsolving ye Viſcidity attenuating & promoting an Admixture of ye glutenous Part of ye Blood with ye serous or proper Diluents thereby rendering it leſs dense, leſs tenacious more fluid & better fitter to paſs off by ye several Emunctories – These Medicines are rendered still more serviceable when joined with proper Refrigerants & those wch determine ye Evacuation by ye cutaneous Pores or urinary Paſsages. To answer these valuable Purposes due Proportions of Sal: Amon: Crud: Pulv: Serpent: Virg: Crem: Tart: & Sal: Nitr:

whether

† Vomits administred in ye Beginning of inflammatory Fevers after Bleeding are of very great Advantage; not only as Evacuants but as they give a sudden Concussion to ye whole System & put every Fibre in Motion, so that a happy removal of ye Obstructions may take Place — A gentle laxitive Purge is frequently of real Service to cleanse ye intestinal Canal from any acrid stimulating Matter; to answer this Intention none seems better fitted than a proper Quantity of Manna, Cream of Tartar & Nitre — or such like Drastic Purges are very pernicious for Reasons already mentioned, as they drain the System of ye more fluid Parts when most wanted therefore are to be avoided as so much Poison. ‡

Crisis of Inflamm.y Fevers

In a strict Observance of Nature & regular timed Art, if Death has not come with an irreversable Sentence, a happy Solution may be brought to an Issue. As Fevers never terminate without considerable Evacuations either raised or promoted by Nature or Art the good Physician will carefully observe, by which Nature seems ye most enclinable to expell ye morbific Matter & then shew himself a Friend to oppressed Nature, & an Enemy to Disease by affording his friendly aid in assisting her when too weak, & correcting her when too violent, least from ~~her~~ Weakness she should fail in her Attempt, or from an Over-Power precipitate herself into ye Jaws of some other Disease, perhaps not less dangerous — "Incidat in Scyllam cupiens vitare Charybdin" therefore the Reasonableness of "Tutissimus ibis in medio" which ye Physician also should still have in View.

The Expulsion of ye morbific Matter is frequently made thro several Emunctories of ye Body at a time, however Nature generally makes choice of some one Evacuation & as this is encreased ye others

whether exhibited in Powders or Decoction prove of real Advantage.
Cantharides may be said to possess acrid stimulating Qualities by wch ye Oscillation of the Vessels are encreased & their Action on ye Fluids thereby occasioning an accelerated ~~of~~ Motion & Heat thereof – Therefore would rationally be disapproved if some other Virtues did not recommend them. From their known good Effects in dissolving viscid Humors, removing Obstructions when applied to ye Part affected & evacuating them by a large artificial Discharge they claim particular Notice & instead of being hurtful, as ye ingenious Huxham asserts ~~has~~ from Reason & Experience he has proven them to be, they are very beneficial therefore with due Defference to that worthy Gentleman I would just say he has – only considered Part of their Effects when he said it is as rational to quench Fire with Gunpowder or Spirits of Wine as to use ym or any Medicines wch stimulate ye Vessels to an encreased Action on ye Fluids as they would thereby encrease ye Disease but since this is only Part# of their Effects the Consequence will not be just – here I might quote himself as a Proof Pag: 306 ad finem

The famous Dr Pringle in his Observations on ye Diseases of ye Army says it is necessary to distinguish inflammatory Fevers into two Stages the first in wch ye Pulse is hard, Bleeding is indicated. The second when ye inflammatory Symptoms still remaining the Pulse is low in this State Blisters are ye chief Remedies & he remarks on a Phrenitis that after sufficient Evacuations of Blood the Rest of the Cure consists in Blisters & other Medicines common to all inflammatory Fevers.

Dr Glass rationally Points out ye Use of Blisters in inflammatory Fevers – Wherefore says he in Fevers wch are inflammatory or rheumatic others are diminished in Proportion; thus a profuse Sweat leſsens ye Quantity of Urine & vice versa &c — If Nature seems indeterminate or to hesitate in her Choice, it then becomes ye Physicians Buſineſs to point out ye most salutary Evacuation & promote it with Caution & with as little Detriment to ye others as poſsible. It is in this Case Nature waits to be taken by ye Hand, & lead in ye Right Way, wch should be carefully observed & embraced least from some Accident, she should be determined to ye most insalutary & noxious. The most desireable Solution of Inflammatory Fevers or even Fevers in general is by a Diaphoresis the next may be by Urine, thirdly by Stool &c —

Frequently Fevers terminate by Abſceſses — should these happen to fall upon ye more vital Parts, & before ye decline of ye Disease, they prove very dangerous; but after the Decline on leſs noble Parts & suppurate kindly, they are salutary & should be promoted by proper Applications, & treated as Abſceſses ought to be — &c — for ye particular Treatment of wch I refer you to some chirurgical Writer such as Le Dran, or Sharp for they do not belong to ye Province of Physic but Chirurgery

Now we may observe, that Nature is ye Physician & we only her Aſsistants, waiting with diligence to embrace her Indications to strengthen her when weak, to correct her when too violent & even to shew her ye most salutary Way when hesitating, that Death may be disappointed pro tempore & the Sick restored to health & vigor again —

But not to dwell on generals I shall paſs to parti:culars where we may have an Opportunity of finding the

foregoing

“ :matic or those wch happen in ye winter Time & others where ye Blood
“ drawn off has a Sizy Crust on its Surface like Glue, or Leather or
“ where it is too thick Blisters are of notable Service to diſsolve this
“ Lentor; but ye Arteries in inflammatory Fevers have too violent
“ a Motion: for wch Reason this Remedy should not be used till after
“ proper Bleedings & tho' ye Pulse, even then too quick, be accele=
“ rated by it yet will only be for a little while, afterwards when
“ ye thick Humors are diſsolved, ye Pulse will become softer & ye
“ Fever more gentle”. Vid: Comment: XII. Pag: 278 & 279 – of Blisters.

The great Sydenham might be called upon as an Evidence for ye Use of Blisters he recommends them in those Winter Fevers when ye Blood is thick & viſcid & ye Pulse not so strong as ye Dis=ease requires: for they effectually answer both these Intentions at ye same Time –

Baglivi de Usu & ab Usu vesicant: Cap: I Exp: 3 & 4. proves Cantharides to be a true diſsolvent of ye Blood.

foregoing Observations on inflammatory Diseases their Origin & Causes verified — To trace them a Capite ad Calcem the first then which comes under Consideration is a Phrenitis.

Definition of Phrenitis

A Phrenitis is an Inflammation of ye Membranes of ye Brain accompanied with a violent & perpetual Delirium & a continual Fever — Or it is an acute inflammatory Fever arising from too great a Quantity of Blood thrown upon ye Brain whereby its Circulation is interrupted especially thro' ye minute Arteries in ye Membranes of ye Brain consequently it is there congested & stagnated — producing intense Heat a violent & preternatural Delirium &c.

As this Disease is situated in ye most noble Organ in ye human Body thereby destroying ye proper Use of Reason & indicating ye sudden Approaches of a Dissolution none demands a more speedy Assistance nor is of greater Importance in Physic.

tantiæ uses Phrenitis

Whatsoever tends to weaken ye Vessels of ye Brain or its Membranes or strengthen those of other Parts & force ye Blood from ye inferior Extremities to ye Head or encrease its Quantity is liable to bring on this Disease such as ye Effects of Air & its frequent Vicissitudes already observed in ye preceeding Essay — From practical Observations it has been remarked that those Persons who are afflicted with immoderate Grief or Care, addicted to an inordinate use of Women or Wine, suddenly surprized with Terror or Anger, overcome by frequent Surfeits of Malt Liquors or Ebriety, used to bad Regimen such a contain improper Nourishment & thereby vitiate ye Blood as also Intemperance of every kind

with

with frequent Watching, sedentary Life, Fatigue of Mind often become so many Sources of a Phrenitis — It is also certain from Experience that a speedy Suppression of an usual hæmorrhoidal Discharge, of ye Menses or Lochia in child-bed Women especially when such are costive lay a Foundation for this Disease.

To these may be added ye accurate Remarks of Alexr Trallian who says a Phrenitis is preceeded by intense & continual Watchings or if ye Patients sleep their Rest is interrupted, start & are much afflicted with terrible Dreams they are forgetful to ye Admiration of those who were acquainted with them & when asked Questions appear more fierce & angry after their Responses than before — their Pulse is hard & small, are much afflicted with a Pain in ye Occiput, their Eyes appear in a Degree fixed, their Looks stern & frightful — these preceding Symptoms encrease as ye Disease advances.

Diagnosis — Those who labor under a Phrenitis are afflicted wth an acute Fever, a Pulse hardly perceptable or if it is, it is low & tense & quick — the Vessels of ye Face are turgid, Blood sometimes Drops from ye Nostrils, weep frequently while ye Tears flow plentifully & unavoidably from their Eyes wch are red fixed & stern their Sleeps are turbulent however if they rest it is disturbed by by Startings frequent Changes of their Posture in Bed & their Heads are in continual Motion & toss their Arms inadvertantly about — Their Urine is copious, yellow & aqueous & discharged by small Quantities at a time — In short they are not sensible of of any Pain are seized with preternatural Solicitude of Mind a Privation of ye Right Use of Reason & even hurried into turbulent Fits of Madness —

Ratio Symptomatum.} It may be of particular Use in ye further Consideration of this Disease to offer some general Remarks on the Diagnostics. Those Symptoms may be accounted for rationally from the present State of the Solids & Fluids (wch I have advanced in ye general Observations on inflammatory Diseases) & the Part affected, wch is the Brain & its Membranes — From too great a Quantity Velocity or Viſcidity of ye Blood the Circulation thro' ye small capillary Veſsels is impeded, & cannot paſs thro' their minute Extremities in æqual Quantities to what is propelled thither, or quick eno', whence Stagnations in those Parts ensue, & from the Anastimoses of the Veſsels there is a quick Conveyance of ye Blood thro' others where there is leſs Impediment, therefore Distensions of the Face, Redneſs of the Eyes, Droping of Blood from ye Nostrils, & Tears from ye Eyes. The Fever (wch is a comparative Term & implies a preternatural Heat) arises from ye reciprocal Action & Reaction of the Solids & Fluids, being greater than usual in a State of Health, wch is occaſioned by many Causes, as has been observed in the proceeding Eſsay on inflammatory Fevers — wch tend to encrease ye natural Heat whether partial or universal.

The Action of ye Heart is stronger than that of the arterial System & Reſistance of their contained Fluids, & the Strength of ye Arteries is greater than this Resistance when unaſsisted by any Obstructing Cause, consequently a regular Circulation & Pulse. When ye Reſistance (from whatever Cause) comes nearly to Counterballance the Action of the Heart & Arteries

there

†. This has been a general received Opinion, but is a Query whether the Blood in inflammatory Diseases while contain in the proper circulating Veſsels is not more fluid

there cannot be as much Blood propelled from ye left Ventricle at each Systole as in a sound State of the Body, therefore the Pulse will be low — However ye Contraction of ye Ventricle to compensate for ye Defect of each Systole being irritated by ye usual or some unnatural Stimuli will be oftener, therefore the Pulse will be quick — The Density & Tension of ye Solids on wch is founded ye Strength of their Action afford a sufficient Reason why the Pulse is hard & tense —

In a Phrenitis there is an irregular & unæquable Circulation of the Blood thro' ye Brain, whereby ye Nerves are affected & the Secretion of ye nervous Fluid is also irre:gular, whence ye Muscles will contract & relax indeterminately; therefore continual & irregular Motions with frequent Startings & interrupted Sleeps, nay even a Privation of Reason & madness itself accompany this Disease. — Hypocrates has given us this just Obser:vation, that Prudence & Reason depend upon a laudable State of the Blood in ye Brain, or in ye modern Phrase upon its æquable Circulation thro' it. so that when this is destroyed Prudence & Reason are also destroyed.

In Diseases of the inflammatory Class ye Blood is mostly ‡ compact, dense & viscid not easily miscible wth any aqueous Fluids, or Serum by the Action of ye Vessels; but are rather seperated, therefore large Quantities of Urine is secreted by ye Kidnies. When we consider Diluents not mixing with ye Blood nor remaining any considerable Time in ye System; but immediately secerned we readily conceive of the aqueous appearance of the Urine. The frequent Evacuation by small Quantities at a Time of Urine ~~wholy~~ wholly

wholy depend on ye Nerves (as has been observed) occasioning an indeterminate Contraction & Relaxation of Muscles, wherefore the Sphincter Vesicæ will be frequently relaxed & the Urine as often ~~[illegible]~~ propelled by a Contraction of the excelerator Urinæ — These general Observations on ye principal Symptoms of this Disease, wch are its Effects on the Body & Mind lay a Foundation for a more Minute Consideration of ye several Appearances, & in short can all nearly be accounted for from ye preceeding Reasons —

As a Phrenitis is of two Kinds, Idiopathic & Sympathetic it therefore is absolutely necessary to discriminate accurately between them, especially when we consider, that ye Anticedent Causes are not ye same, consequently may indicate different Treatments to remove yir primary Causes —

A Sympathetic Phrenitis is a Disorder of any Kind communicated to ye Brain or its Membranes from any other Part so as to produce ye same Effects, as an Idiopathic already described — In both of these there is an acute Fever; but with this Difference, that in ye latter it preceedes, whereas in ye former it is an inseperable Concomitant of the Disorder, or ye one is a primary Inflammation of ye Dura & Pia Mater, whereas ye other is a like Inflammation conveyed to these Membranes from some other Part — The sympathetic Phrenitis generally supervenes ~~&~~ other Disorders about ye critical Days, which then is attended with Rigor, Tremor of ye Joints, Refrigeration of ye Extremities, Tension of ye Præcordia &c & thin watery Urine evacuated by smaller or larger Quantities at a Time & more frequent — This Phrenitis is also carefully

to

to be discriminated from a transitory Alienation of Mind, wch scarcely have any of ye preceding Signs & is only of a short Duration —

Prognosis — Practical Writers generally agree, that a true Phrenitis commonly carrieth off the Patient on ye third, fourth or seventh Day, wch last it rarely surpaſses; but if it should, and grow more violent, it then commonly degenerates into a Mania, & Boerhave observes oftentimes terminateth in a Lethargy Coma or Catoche —

When attended with frequent Vomitings, indecent Spitting, Gnashing of ye Teeth, irreſistable Tremors, Catching at Objects wch have no Existence, Convulsions, a continual Change of Symptoms, Bowels constipated, Urine obstructed, white & crude, are certain Presages of ye greatest Danger, nay even Death. When a Phrenitis succeeds or is symptomatic of a Peripneumony, Pleurisy, Iliac Paſsion &c — it generally proves mortal & very dangerous after all other inflammatory Diseases. Of all ye Species of a Phrenitis none portends greater Danger than that wch prevents ye Patient from submitting to what is absolutely neceſsary.

Methodus medendi — Previous to a Consideration of the Cure of this Disease, it appears of no small Consequence to advert to ye following Particulars, such as Varices hæmorrhoidal & uterine Discharges a Diarrhœa: in a Word all Hæmorrhages, if not in too great a Quantity or proceeding from a broken Texture or Diſsolution of ye Blood, especially those wch are nigh ye Part affected — It also is allowed, that a Pain in ye Breast (wch I have seen verified) or violent Cough superveening, terminate this swift Meſsenger of Death & frustrate his mortal Designs.

The general Indication pointed out by reason is to leſsen ye Action of ye Solids on ye Fluids, on wch depend ye different Textures of ye Fluids. This increased Action is excited by some of the Cauſes mentioned in ye preceeding Eſsay - giving an Overballance of Power to ye Solids, or an exerted Force from Irritation — From an increased action of ye Solids, the more fluid Parts of ye Blood are ſeperated from ye denser & conveyed off by ye Emunctories (especially the urinary) & the denser Particles forced within ye Sphere of each others Attraction, whereby they Unite. To accomplish what is here pointed out it becomes neceſsary

1st.- To leſsen ye Quantity of ye Fluids.

2dly- To remove ye irritating Causes, or weaken ye Action of the Solids.

3dly- To promote a proper & natural Mixture of ye Fluids.

To answer ye First Intention, it is agreed by all, both antient & modern Physicians, that A: vel V: S: is copiously to be instituted, as near ye Part affected as poſsible. This is recommended to be executed either by one large Orifice, or by two or three at a Time, as the temporal Artery, the jugular Veins: because both ye internal & external derive ye Blood from ye carotid & vertebral Arteries, the Venæ Raninæ of ye Tongue (this I have known of peculiar Advantage in an Angina) & one in the Foot — I say either one or more of these may be opened with safety & advantage — The celebrated Dr. Pringle says that "An orignal Phrenitis "requires immediate large & repeated Bleedings; & ye Relief is "tho't to be the more certain, if ye Blood can be taken from the

"the jugular". He also advises to apply six or seven Leeches to ye temples, as a Substitute for cutting ye temporal Artery. the Benefit thence arising may be compared to the Effect of a plentiful Hæmorrhage from ye Nose — By this Method ye congested & obstructed Fluids will be leſsened & carried off, whence a regular Circulation thro' ye Brain will ensue, consequently Reason will again be restored. but having already mentioned ye Uses & Neceſsity of V.S. in inflammatory Diseases I need not at present enlarge or repeat ye same Sentiments —

The second Intention, wch is to remove ye irritating Causes or weaken ye Action of ye Solids — This is in part answered by ye foregoing vizt V.S. as ye Quantity of the Fluids are leſsened, so as not to distend ye Veſsels beyond their Mean Diameter, consequently their Irritation is also leſsened. But as there may be some irritating Quality in ye Fluids arising from an acrimonious State thereof, it remains neceſsary to remove this by some of ye Outlets of ye Body. Hyppocrates (that Father of ye curative Art) de Morbis justly advises ye Body to be kept soluble by moistening Potions, wch relax ye spasmodic Strictures of ye Coats of ye Intestines: for Spasms of ye Primæ Viæ are frequently ye Causes of Deliria; because ye Contents are thereby detained untill, they become acrimonious & stimulating, Part of wch is carried into ye System & act as Stimuli to ye Solids. To remove this Source of Irritation a Solution of Manna in Milk Whey with an Addition of

Cream

Cream of Tartar & Nitre ~~& Almond Oil~~ is of particular Advan:
:tage & should be given occaſionally, & if need requireth a Clyster of like Nature should be exhibited. Such gentle antiphlogistic Purges ought indispensably to be administred & aſsisted with large Quantities of nitrous diluting ~~Drink~~ Drinks ~~great~~fully acidulated with Lemon Juice or good sound Vinegar, which may be Decoctions of Barley, Harts Horn shavings, the cooling Roots or Seeds &c. prepared as above. This method prosecuted with Diligence relaxes ye Solids removing Obstructions & washing out by the Emunctories all acrid & stimulating Substances. But as a proper & natural Mixture of ye Fluids is neceſsary to compleat ye Intentions of Cure therefore ye Propriety of the

Third Proposition wch was to promote a proper & natural Mixture of ye Fluids. For this Purpose attenu:
:ants prove particularly Advantageous, such as Decoctions of Seneka, Nitre, Ammoniac &c — & whose Effects as Diſsolvents & thereby promoting a due Admixture of the Fluids, I have already advanced in the proceeding Eſsay together with ye Use of Blisters, & all other Medicines common in inflammatory Diseases —

It may not be unneceſsary to observe that washing or bathing ye Hands, & Feet in warm Vinegar & Water & keeping them warm by wrapping them in Flannel, thro ye whole Course of ye Disease, relieve the Patients from Deliria & bring about a favourable Iſsue of the Disease. This also may be aſsisted by shaving the Head &

& applying Clothes dipped in very strong Vinegar to that Part, wch should be rather cool than otherwise —

If the Phrenitis is symptomatic whether from inflammatory Disorders of any Kind, a Suppreſsion of natural Evacuations &c — we are carefully to consider whether these primary Disorders will allow of the proceeding Method of Treatment. if not we are then in the Cure to have Recourse to those Medicines, which are appropriated to each —

I shall now conclude this Diſsertation by observing a few Particulars with Respect to the Patients Regimen, a Choice of his Nurse & Visitants, as they may be worthy our Notice: 1st The Air to which the Patient is exposed should neither be too Moist or Hot, too Cold or Dry. The Propriety of this Caution may be readily understood from the Effects of these various Constitutions of the Air already observed in the former Eſsay on inflammatory Fevers — therefore should be temperate, clear & pure. His Position may be worthy our Notice wch should be (if poſsible to be accomplished) an erect Posture, that the gravity of the Blood wch is equal to its Quantity & perpendicular Height might counteract ye Force of ye Circulation, & aſsist other Endeavours in preventing too great a Quantity of Blood being sent to the Head — His Diet should be the same as in all inflammatory Diseases light, slender & of easy Digestion, not partaking of any stimulating or heating Qualities either by Nature or Art, unleſs otherwise directed by some skillful Physician — His Drink should be of the Demulcent, relaxing & refrigerating Kinds exhibited moderately warm — His Chamber as Alexander Trallian says

should

A Pleurisy

Definition of a Pleurisy }— Is a violent Pain on either Side of ye Breast at:tended with an acute Fever— arising from an Inflam:mation either of ye internal Lining of ye Thorax called Pleura or intercostal Muſcles— from this it may be dis:tinguished into two Kinds, viz True & False or spurious— The true then is an Inflammation of that Membrane, wch lines the Cavity of ye Thorax, called Pleura, wch properly speaking has ye only right to that Term— The latter has Nothing to do wth that Membrane & is only an Inflammation of ye intercostal Muſcles or Periosteum of ye Ribs— However as they are both equally dan:gerous & are relieved by nearly ye same Medicines, they have always been treated under ye Name of Pleurisies & this perhaps on account of ye Difficulty in Distinguishing accurately be:tween them—

In treating of this Disease I shall confine myself to the following Method— 1st Give it's History— 2dly It's Causes both procatartic & proximate— 3dly The Diagnosis— 4thly The Prognosis— and lastly mention something of the Method of Cure.

Hystory of a Pleurisy } First then of it's Hystory— This is one of those Dis:eases, wch Sydenham calls intercurrents as coming on at any Time of ye Year; but more commonly at ye Approach of Spring, when a Cold dry Constitution of ye Air has preceded, especially if a North:Easterly Wind attended that Constitution: for it is ye Observation of Hippocrates that N.E: Wind tends to generate Disorders of ye Breast at wch time it is epidemical &

‡ Any Part of ye widely extended Pleura being enflamed, says ye judicious Huxham a Kind of Pleurisy is generated, in wch ye Lungs themselves by Continuity, Contiguity, Cohesion or Sympathy will soon become greatly affected

& is more or less so, according to ye Degree & Continuance of that Constitution. Every Age & Sex may be ye Subjects of this Disease; but oftenest ye young, strong & Plethoric, such as have been inured to hard Labor –

When a Person is seized with this Disease he at first complains of Chilliness, wch is succeed with a Heat, continual Fever, hard, strong tense Pulse, & an Acute Pain in either or both Sides, the Back, Sternum &c – So violent as to hinder a due Expansion of ye Thorax without Causing an insupportable Pain, a dry Cough, wch causes ye like Pain, by ye sudden Concussion it gives to ye pained Part, a Dilirium, Nausea, Watching & vomiting & sometimes Peripneumonic Symptoms supervene ‡ &c – After a judicious Use of Medicine or a salutary Effort of Nature an Expectoration is brought on the Pulse becomes softer & it terminates in some critical Discharge, or ye inflamed Parts turn gangrenous or Mortify & ye Patient dies – These tho they do not all combine in the same Patient yet we may see them all in different Patients

Causes of a Pleurisy } 2dly The Atmosphere in wch we breathe may be a Cause of this Disease – a cold & dry Air may have the same Effect by constringing ye whole external Surface of ye Body making the Skin more dry & corrugated, shutting up ye Pores, & thereby lessening Perspiration, or at least suffering only ye finer Parts to transpire. A cold dry Air may have ye same Effect also by making ye whole System of Fibres more firm, strong & elastic & ye action of ye Solids on ye Fluids more vigorous & forcible whence a brisker Circulation.

more

more Heat, Spirit & Activity by wch ye Globules & ye Blood are rendered more dense, compact & numerous & the whole Mass of Humors disposed to a greater Degree of Tenacity – A cold dry Air may have ye same Effect by its Gravity & Elasticity for by its Pressure on ye Body ye Vessels are so compressed as to lessen their Diameters & consequently their Capacities thereby cooperating with ye ~~with ye~~ other Qualities of the Air in bringing about a quicker Circulation. Let us now suppose a Man, whose Body these Effects have been wrought upon, exposed to violent Exercise, too free a Use of generous Liquors or a cold Damp Air, by wch means there will be an encreased Velocity of ye Blood, the Consequence of wch will be, that ye Blood in its rapid Course will be forced into some of ye small & before impervious Vessels, thro' whose Extremities on account of its Viscidity, it cannot pass; but stops & thereby forms Obstructions, Inflammations &c – It would be needless in this Place to enumerate ye Causes of inflammatory Diseases as they have been fully discussed in a preceeding Essay –

But here it may be asked why ye Inflammation falls on ye Pleura rather than any other Part or Membrane of ye Body? I answer, that Sydenham in speaking of Intercurrents says, the pleuritic Fever is of such a Nature as always to deposit ye morbific Matter upon ye Pleura, in ye same Manner, that of a Quinsey on ye Throat, that of a Phrenitis on ye Membranes of ye Brain, & so of any other Species of Inflammatory Diseases; But this I think doth by no means account for it. Therefore we are called upon to offer our Reason in answer

to

to ye Query, wch I would adduce in ye following Manner; from the Disposition of ye intercostal Arteries, ye Nature of the Fluids & their Circulation. The Ramifications of ye intercostal Arteries from ye Aorta appear to be one great Cause why ye Inflammation of ye Pleura is bro't about; for these go off nearly at right Angles. It is also well known from Hydrostatics, that ye densest, heaviest Particles of a Fluid keep ye Axis of a Canal, while ye lighter (wch are ye most viscid) are thrown to ye Sides of ye same. This being applied to ye Vessels of ye human Body, it necessarily follows, that ye lighter viscid Particles of ye Blood in ye Aorta will readiest offer themselves & be forced into ye intercostal Arteries, to wch add ye diminished Force & Velocity of ye Blood thro these Vessels owing to ye Largeness of ye Angles made with ye Aorta — The Momentum & Velocity of Bodies are diminished or destroyed according to ye Resistance they meet: the greater ye Angle ye greater ye Resistance consequently a diminished Momentum & Velocity — These Particulars being known we are furnished with a satisfactory Reason why Obstructions are formed in ye fine cappillary Vessels dispersed all over ye Pleura.

3dly — It is necessary to distinguish a Pleurisy from other Diseases of ye same Class, by wch we might be deceived — 1st Then we will shew wherein it differs from a Peripneumony in ye former the Pain is more acute, & seems to be confined to a smaller Space; whereas in ye latter ye Patient feels an obtuse dull Pain & a heavy disagreeable Sensation all over ye Breast with an Anxiety & short Cough, wch is more violent; in ye former & ye Pulse also is more full, hard & vibrating, than in ye latter —
2dly — It differs from a Paraphrenitis in this, vizt that a Paraphrenitis is

is attended with more violent Symptoms, such a perpetual
Dilirium, a Preſsure of ye Abdomen on making Water, or going
to stool, the Hypochondria are also lifted up & inwards & on
account of ye very sensible Part, on wch it is situated, is more
dangerous & still more so from ye Contiguity or Vicinity
of ye Diaphragm to many of ye noble Viſcera as well vital as
as ye Chylopoetic, which are sensibly affected — These being
the only two Diseases, which bear any near Resemblance
to a Pleurisy & by which we should be the most liable to be
miſsled, & as ye Diagnosis is fully comprehended in ascer-
taining ye Difference between a Pleurisy & ye above mentioned
Disorders viz: Peripneumony & Paraphrenitis — I shall

Prognosis 4thly Mention those Signs, by wch we may foretell
the Event of this Disease — 1st Then I shall mention
those Signs which portend a happy Iſsue, which are —
Hæmorrhoidal or Uterine Discharges of a sufficient Quantity
of well qualified Liquid at seasonable Times — a considerable
Evacuation of thick hypostatic Urine with a burning Heat
& easy Emiſsion, when it has been prætty high coloured with
a white Sediment before ye fourth Day — A copious Dis-
charge of yellow bilious Matter thro' the Bowels before
the fourth Day, if it affords ease to the Patient — Schirrous,
purulent & fistulous Impostumes running long & begun
before the sixth Day appearing behind the Ears or on ye Legs.
a Removal of the Pain from the Side to the Shoulders, Hands,
or Back with a Numbneſs, Pain & Heavineſs of those Parts,
a plentiful Expectoration (if it renders Ease) at first like Matter

Matter; but changing to a white before the fourth Day, in which Case you may expect a Cure on the ninth Day or eleventh - A free & easy Respiration if the Thorax is fully dilated at each Inspiration about the fourth Day - a soft full & regular Pulse - a moist Tongue & moderate Degree of Thirst -

But if on the other Hand the following Symptoms should afflict the Patient, we have no leſs than Reason to apprehend Danger, viz If the Matter expectorated be tinged with Bile is round or purulent with some black Streaks of Blood; stinking, black & sooty like Lees of Oil - a great Rattling in the Chest with a sad Countenance, the Eyes red, yellowish & dim - A Discharge of Spittle in ye Beginning of various Colours forebodes the Patients Death on the third or fourth Day - a great Snoring while he sleeps, no Sputum or a great Difficulty of Spitting, a languid Pulse, an extreamly high coloured Urine - a Looſeneſs with watry, stinking, rotten Stools, if Symptomatical & not critical nor easing - "A Peripneumony supervening says Hypocrates is dangerous" - a Relapse of the Pleurisy - no inflammatory Crust appearing on ye Blood after Bleeding, a Difficulty of Breathing remaining after ye Expectoration has ceased & also is encreaſed with a Pain & Heavineſs of ye Chest. a hard small quick Pulse, & great Heat, all which if they continue growing worse on the fifth Day portend Death on the seventh. A red dark Urine with a Sediment mixed & of various Colours not entirely seperated at the Bottom

Bottom or Sides forebodeth a Desolution within fourteen - Days; but if the Sediment be black or broke into small Pieces like Bran the Desolution will be sooner. A Pleurisy appearing gentle at first & growing worse on the fifth or sixth Day portends Danger on the seventh & twelfth - They seldom do well, who do not overcome or get better before the fourteenth Day - A Tongue dry from the Beginning, foul, livid & black with black Blisters thereon - If any one of these Signs be present singly or two or more of them together the Disease is most Times mortal of itself; but if ones sooner in Death from a Combination. If cured sometimes, it is with the greatest Difficulty. However it most Times kills by a Gangrene of the Side, or of the Lungs nearly contiguous.

nethodus }
nedendi }

I now come lastly to mention something on the method of Cure. As in all inflammatory Fevers so in this, too hot a Regimen is to be avoided, both with Respect to the Bed=Cloaths & Heat of the Room, nor must the Patient be exposed to the cold Air nor drink Things actually Cold. Hoffman observes, that all strong Sudorifics & Cathartics are hurtful & Huxham recommends gentle Laxitives & diaphoretics. If Nature is determined either of these Ways, she is not to be corrected unless hurrying too precipitantly: while on the other Hand she is to be assisted when too weak, least she should fail in her attempts to expell the morbific Matter or eraze the funda=mental Causes of the Disease.

Diet

Diet is a Cooperator with Medicine in the Cure of Diseases & not the least effectual when judiciously used - an indiscriminate Use of Meats & Drinks ~~is~~ not only hurtful to the infirm & diseased; but even to the healthy - therefore with Propriety it becomes necessary to prescribe a Regimen ~~to~~ suitable to the Nature of the Disease - In a Pleurisy as well as all inflammatory Disorders the Diet should be cooling, relaxing, slender & diluting. Moistening Things taken warm are preferable to all others, hence Barley or Oatmeal Gruel sweetened with Honey & gratefully acidulated with any good sound vegetable Acid & also sweet Whey are proper & very beneficial - &c -

If the Physician is called before the third Day Boerhave Huxham &c direct a large Quantity of Blood to be let from a large Orifice. The former recommends Coughing to accelerate it & gently rubbing the Part affected. This should be repeated as often as the Symptoms return, which it was intended to remove, & till the Absence of the inflammatory white Pellicle or Buff (as it is called) from the Surface of the Blood shews it Time to leave off. This Huxham confirms by his own Experience & adds, that after the fourth Day V.S. is not safe: he likewise recommends fomenting the Part, which often cures the Pain & terminates the Disease; but if it is obstinate, he recommends slight Scarifications, then cupping & afterwards a Blister on the same Place, which has been successful when other Methods have failed - The Patients Body thro' the whole of this Disease should be kept moderatly

open

open either with gentle relaxing Purges or emollient Clysters repeated as occaſion may require, large Quantities of strong, diluting, aperient & antiseptic Liquors should at the same Time be exhibited. Dr Mead observes on the Treatment of this Disease, that, after drawing as much Blood as is neceſsary, Draughts with fresh drawn Lintseed Oil are of great Service for easing the Cough, Nitre for diſsolving the Blood that obstruct the small Canals & allaying the Heat, which may be advantageously aſsisted by a Decoction of Rad: Senekæ, small Doſes of Volatile Salts, & lastly Blisters laid on the Part affected to diſsolve & evacuate the viſcid peccant Humor

A True Peripneumony.

Many are the Diſeases to which the human Body is subject & various are their Sources; but none seem to require a more perfect Knowlege of the Animal Oeconomy than those wh attack the vital Organs, amongst wh a true Peripneumony does not demand the least con:sideration as the Lungs in wh it has it's Seat is so noble a Viſcus, wh is a principally concerned in Respiration, in changing the Chyle & admixing the Air with the Blood (perhaps in carrying off something from this Fluid wh being retained would prove destructive to Life or by means of the Air imparting something eſsential to our Pre:servation) As well as being so principally concerned in the Elaboration of the Blood it cannot be in the least affected without impairing in a proportionable Degree the Functions of all the other Organs. But chiefly it becomes very interesting as it is a Diſease wh in its more advanced State threatens the greatest Danger & demands the utmost Exertions of the Physician's Skill.

It will be of no small Consequence towards a succeſsful Execution of our Design to premise some De:scription of the Thorax both of the containing Parts &

the

the containing eſpecially of the Lungs, their Structure & Connection & from whence we shall have a better Notion of its Functions in a sound State & how these are injured by Inflammation & its Consequences as well as gain a clearer Idea of the Method of Cure.

General Description of the Thorax.

The Thorax is made up of a great number of Bones to give Shape & Firmneſs to that Part of the Body & to guard from Injury those important Organs the Heart & Lungs — of Muſcles to perform its Motions & is lined with a smooth investing Membrane to suffer the Lungs to expand & move upon them with leſs Danger from Friction. The Cavity recieves its Form posteriorly and laterally from the Vertebræ of the Back & the Ribs. The Vertebræ of the Back with those of the Neck above & of the Loins below, & the Bones of the Sacrum & Coccygis composes that spinal Pillar of Bones with wch the Ribs being articulated towards the posterior Part & bent round in an arched Manner on each Side untill articulated by the Intervention of Cartilages to the Sternum forming a cylindrical Cavity The Sternum & Cartilages

&

of the Ribs give it a Flatneſs before & compleat the anterior Part.

It is terminated by the Diaphragm below, which — being connected to the inferior Ribs makes it deeper behind than before where it is fixed to the Sternum & it does not reach near so low. It is terminated above by the superior Ribs as these from below upwards become shorter & more curved so as to end in an obtuse Apex with a sufficient — Aperture for the Paſsage of the Oesophagus, Trachea & blood Veſsels.

The Prominence of the Spine inwards & forwards makes the Distance from the Vertebræ to the Sternum not to exceed above one half the largest Breadth acroſs from ye Ribs on one Side to the other. These Circumstances the Flatneſs of the Back from the Angles &d the Ribs make about the transverse Proceſses & the Flatneſs of the Breast or anterior Part of the Chest together with the Convexity of the Diaphragm upwards & its posterior Connection being lower than its Anterior all conspire to render the Cavity of the Thorax very irregular & give it a Form very different from that of a Conoid, a Comparison Authors have seemed fond of making.

Of the containing Parts of the Thorax.

1. The hard containing Parts of the Thorax.

The hard Parts are the 12 Vertebræ Dorsi the 12 Costæ of the Sternum with ye connecting Cartilages of the Ribs of wch we are now to treat a little more particularly.

The twelve Vertebræ Dorsi compose that Part of ye Spine wch forms the middle posterior Part of ye Thorax the Bodies are not placed so immediately above one another as to be in a strait Line; but are in a Direction curved outwards, wch is chiefly useful in giving it an Increase of Strength - To each Vertebra are 7 Proceſses four oblique for the Articulation of the Vertebræ together two transverse one on each side for the former Articulation of the Ribs & such as is consistant with their neceſsary Freedom of Motion & one Spinal for the Insertion of Muſcles serving as a Lever & each inferior Body of the Vertebræ as a Fulcrum. &c.

The Ribs are all curved & convex outwardly, whereby they can better support the Weight of the surrounding Atmosphere & by a superior Strength guard the contained Viscera - from external Violence they are concave & smooth within to allow a freer Action of the Lungs. They are divided into seven superior which are called true Ribs because their

Cartilages

Cartilages reach all the Way to & connect them with ye Sternum & the five inferior wch are called False Ribs their Cartilages not being united to ye Sternum but to the Cartilages of the Ribs - above them. The seven true Ribs are larger, leſs curved and flatter & deviate more & more from a Parallelism with each other & a Plane with the Horizon. as they deſcend i.e. they become more & more divergent anteriorly, & form more acute Angles with the Spine but the False Ribs as they deſcend become shorter & the Diaphragm is so fixed to the Inside of these as to be often nearly parallel with them so that here the Thorax is contracted into a very small Space.

Definition of
rue Peripneumony }

A True Peripneumony is an Inflammation in the blood-Veſsels of the Lungs whether Bronchial, Pulmonary or both — & is attended with an acute continual Fever & difficult Respiration.

uses }

The Causes producing this Disorder may be any of those wch bring on an Inflammation in any Part of the Body. The most common praedisposing Causes are a Plethora or weak State of the Lungs from any preceeding Complaint or naturally bad Structure — The more common or immediate Causes are generally a moist, cold or dry Atmosphere, a Exposition to the Air stopping the Perspiration on coming from a warm Room, or any violent Exercise, Drinking, Animi Pathemata — or other acute Diseases bringing on this as a Concomitant — such as a Pleurisy, a Paraphrenitis & then it is called sympathetic.

Many other particulars may be mentioned as Causes producing a Peripneumony; but as these are the most usual & principle ones & most or all of the others are similar & may be reduced to one of these Heads under wch these are claſsed — as a Plethora, some Fault in the Air, in Diet or Exercise — Paſsions of the Mind or a preceeding Disease. We are not anxious to make a more full or minute Enumeration of them since if we understand how these are capable of producing

producing a Peripneumony we shall not be at a loss to ~~account~~ account for it from any other Cause wch may be assigned.

And since the Effects of those Causes which produce Inflammation in this in common with other Parts of the Body, ought to be subject of Inflammation in general. Not to make a Digression too far from our Subject, we must suppose these sufficiently understood & take a more limited View. We shall therefore confine ourselves chiefly to the following Considerations 1st. of that Constitution & strong full Habit of Body wch most commonly predisposes to this Diseases, as cooperating with a cold dry Air the most frequent Causes wch lay the Foundation of inflammatory Diseases especially in the Lungs – 2d enquire into the Nature of the perspirable Matter, the Causes of its Obstruction, & the Effects it produces when retained in the System, particularly in producing a Peripneumony.

The strong full Habit of Body we mean has commonly a Tendency to a Plethora wch strictly speaking supposes too great a Quantity of the constituent Fluid Parts wch overcomes the Resistance of the Vessels & keeps them upon the stretch from this we would only infer the Existence of strong Elastic Vessels with dense compact

Fluids

Fluids & that any adventitious Cause may so alter the Solids & Fluids as to make their mutual Action too violent or by a partial Addition or Subtraction destroy their ~~anta~~ antagonizing Power, wch depends on the just Equilibrium of the vis motrix & moles movenda - & whenever the Habit of Body is such that Solids & Fluids have arrived nearly to as great a Degree of Density & Strength as is consistant with Health, then there is Danger of Inflammation upon the least Change of the Air especially to dry & cold.

Let us examine then how far a cold dry Air may equally encrease, or destroy the Ballance of the moving Powers - The aerial Fluid wch constantly surrounds us & is perpetually contiguous to the Surface of our Bodies must by the great Diversity of its Qualities & the continual Viciſsitudes to wch it is liable affect us in a great Variety of Ways; but as cold & Dryneſs only have a Connection with our Case we shall paſs over the others & confine ourselves alone to a Consideration of a few of these moſt remarkable Properties with wch those are connected.

The great Difficulty of ascertaining the Preſsure of the Atmoſphere on the Surface of our Bodies has made Authors differ widely in their Computations yet they all agree in

making

making it very considerable viz about 32153 lb; but as this must differ according to the various Constitutions of the Air the Resistance to the expansive Force of the Fluids will be cæteris paribus according to its Density cold Air powerfully poſseſses this property, hence where it prevails by diminishing the Veſsels on the external Surface of the Lungs & Body a greater Quantity of Fluids must be determined to the internal Parts from this will arise a considerable Obstacle to the right Ventricle of the Heart whose Power of Contraction will be as the Resistance of the Blood paſsing thro' the Veſsels, this continued for any Time must encrease the Elasticity of the Solids & render the Fluids more firm & compact especially if we consider the Power that a dry Air has of inducing a similar Change. But to shew how these united Causes continued for some Time, should produce an inflammatory Diathesis, would neceſsarily lead into a Theory which to discuſs fully would carry me far beyond the Limits of a Disertation of this Kind we shall therefore only give the two Opinions wch seem most consistant with Reason & Observation without offering any Arguments to support either — The first is that of encreased Ocillation — The other that of Extravasation — I shall here only observe that tho' the one may certainly happen independant of the other yet encreased Ocillation seems frequently the Cause of Extravasation & e contrario.

we

bstruction of nspiration

We shall now consider our last Head viz that of Perspiration &c. tho' we are yet much in the dark as to the Nature & Properties of this Fluid yet from its sensible Qualities & Power of producing Diseases, we are certain it is a Fluid of considerable Acrimony & from Experiment we find that in Quantity it exceeds all the other Excretions. If this then is retained in the System it immediately raises a Fever wch will be more or leſs violent according to the Quantity & Quality of the obstructed Fluid. among the Effects of a cold dry Air perhaps one of the most remarkable is that of stopping Perspiration not only by diminishing the Veſsels in their Capacity but its Stimulus on the vital Powers.

Spirituous Liquors have this effect in a great Degree especially if drank to Exceſs. Is not this proved by the thirst quickened Circulation & encreased Heat wch always follow? The sudden change from a warm Room to the Cold Air must make the Construction on the Surface of the Skin more obstinate as Heat always gives encreased Sensibility to the Body.

From these few Observations we see how the Weather conspires with the before mentioned Habit of Body to lay a sure Foundation for inflammatory Diseases upon the Stoppage of Perspiration wch by the considerable Acrimony & Addition the Fluids acquire by the Acceſsion stimulate the Heart & Arteries so as to make them contract more powerfully hence ~~encreaſ~~

encreased

encreased Oscillation Extravasation &c &c —

As all the Fluids must circulate thro' the Lungs & that in a much shorter Time than thro' the rest of the Body it is plain that when the Excretions are suppreſsed or any kind of Acrimony introduced into the System, the Lungs must most certainly feel their bad Effects.

From what we have said we may judge of the Justneſs of the following Obsewations of Hypocrates — 1st That a cold N. E: Wind is productive of Diseases of the Head and Breast — 2dly That Pleurisies & Peripneumonies are most frequent & violent in the Winter especially when People expose themselves to breathe in a very cold Air, after being heated by Exercise or Fire that great dryneſs of the Weather produces acute Fevers. If we knew then what Changes are bro't on our Fluids by the particular Constitution of the Air it would be easy to foretell the future Diseases and Remedies best adapted to their Cure for as Hypocrates observes, Diseases are slowly formed tho' they break out suddenly.

Diagnosis

Therefore when those Causes have taken Place & been followed with such Symptoms as the following we may be certain that the Disease is a true Peripneumony viz

universal ng

Universal Wearineſs over the whole Body, shivering succeeded by a general Heat, heavy dull Pain in the Breast with quick, hot & laborious Respiration, Cough, parched Tongue, and Face preternaturally red with somewhat inflamed Eyes great Anxiety Restleſsneſs & Weakneſs Pulse small & soft. But some of those Symptoms being equally common to other Disorders were to observe that the Diagnostic Signs are particularly these following viz:

Diagnostic Signs. A dull heavy Pain in the Breast hot Breathing Cough, difficult Respiration small soft Pulse are the usual Symptoms wch always accompany this Disease; but since all those we have mentioned may be looked upon as very steady & regular they all deserve our Notice & merit an Explanation wch we shall endeavour now according to the best of our Power to give in Order.

Ratio Symptomatum.

Universal Wearineſs — This seems to me to arise from the retained perspirable Matter not only encreasing the Bulk of the Humors, so as to take up a larger Space but by the Acrimony wch it has acquired by repeated Circulations it disagreeably stimulates the whole vascular System especially the capillary Veſsels so as to raise that uneasy Sensation in the Mind.

Shivering

Shivering succeeded by Heat— This appears to be a Species of Convulsion owing to the perspirable Matter stagnating the exhalent Veſsels of the Skin wh by its Irritation excites an Uneasineſs in the Sensorium Commune to remove wh the moving Powers are thrown into alternate Contractions & Relaxations wh protrude it thro the Skin, or by the Spasm obstinately resisting its Paſsage off this Way, it is thrust inwardly & mixed with the Maſs of Fluids whether one or the other takes Place we imagine Heat will succeed at least an imaginary one for the Mind seems here to be ~~[illegible]~~ deceived & feels what in Reality does not exist.

Heavy dull Pain of the Breast— Whatever impedes the free Paſsage of the Blood from the right to the left Ventricle of the Heart must give rise to this Symptom. Several Causes pro:duce this Obstacle. 1st The inflammatory Spasms on the Veſsels of the Lungs. 2dly The increased Quantity of Fluids of the acrid & stimulating Kind, from the retained perspirable Matter, & the Remains of a Debauch hence the pulmonary Veſsels will neceſsarily be put upon the stretch whose violent Nisus to overcome this distending Force & push forward the Load of Humors must occasion this Pain wh is dull & heavy on account of the small Degree of Sensibility which the Sub:stance of the Lungs have.

Respiration quick & laborious— Respiration is carried on by the alternate Contraction & Dilatation of the Lungs which

reciprocal

reciprocal Motion must continue for a certain determined Time to allow the Blood to flow from the right to the left Ventricle of the Heart because during Expiration the pulmonary Veſsels are compreſsed & in order to adapt themselves to the leſsened Capacity of the Thorax they are shortened; bent at great Angles & have transverse Rugæ formed in their internal Surface from these Obstacles the Blood begins to stagnate in the right Auricle Ventricle & vena cava this raises an Uneasineſs to remove wch the nervous Influence is determined into the Muſcles which enlarge the Thorax wch taking off the Hindrance to the Motion of the Blood it flows easily thro' them the same Thing takes Place during Inspiration, on account of the Air Veſicles com:preſsing the Capillaries &c. from this we plainly see the Cause of this Symptom the Patient cannot dilate his Lungs fully because of the stretching of the inflamed Veſsels, ~~neither~~ neither contract them fully on Account of the Formation of the Angles & Rugæ wch would give equal Pain to avoid which as much as poſsible & compensate in some Measure for this Deficiency in Respiration he does it more frequently.

Breathing hot & Cough

The Air is never pure but always loaded with a Variety heterogeneous Particles wch by Inspiration are carried down & applied every where to the internal Surface of the Lungs, to guard against the Ill Effects of this latent Acri:mony Nature has provided a Number of small Glands in the cellular Coat wch surrounds the Muscular of the Trachea and

Bronchia

Bronchia these constantly pour out by small Ducts wch open thro the external Epidermis, a bland Water pellucid Mucus, wch mixing with the subtle Vapor exhaling from the Cells of the Lungs besmears every where their internal Surface. While this is furnished in due Quantity we find no Inconvenience from the inspired Air but in this Disorder very often from the inflammatory Spasm in the Lungs & Trachea the Duct must be considerably constricted hence the internal Membrane de=prived of its Fence against the Acrimony of the Air must be irritated & give rise to the Cough — The Friction of the Cells againsts each other from the Distention of the Blood Veſsels may contribute to this.

As to hot Breathing — we may easily see how it should Occaſion this Sensation when we consider that the inſpired Air when the internal Membrane of the Nose is inflamed has this Effect — it is plain it must more readily take Place when heated in the Lungs their internal Membrane being under the same Circumstances.

Face ruddy
Eyes inflamed }

From what we have said in accounting for the former Symptoms the Cause of these may be better underſtood from the Difficulty the Blood has in paſsing thro' the Lungs it must be collected in the Venæ cavæ hence its Return from the Head must be slow & difficult & all ye Veſsels turgid.

Great Anxiety, Restleſsneſs
and Weakneſs ------ }

The Difficult Respiration & ye Irregularity of the Secretions & Excretions wch always attend a disturbed Circu-lation

Circulation sufficiently account for these Symptoms & if we consider the Quantity of the Fluids sent to the Brain we see that this tender Organ must be greatly Disordered the Fluids themselves are unfit for the Formation of that somewhat whose Influence gives Strength & Vigor to the whole System

Pulse small and soft -- } The Flow of Blood to the left Side of the Heart because of the considerable Obstruction to its Passage thro the Lungs does not stretch the left Ventricle with such Force as to produce a full Contraction hence the Pulse must be small & as there is no Resistance to its Action must likewise be soft. But the Softness of the Pulse in a Peripneumony even when full, seems to be owing to the Fewness of the Nerves sent there & it's consequent great^{er} Insensibility — Where it does not occasion such a ~~p~~ powerful Stimulus to the Heart as is produced in a Pleurisy from the greater Number of the intercostal Nerves w^{ch} excite stronger spasmodic Constrictions than in a Peripneumony — hence a fuller but particularly a harder Pulse.

Prognosis. — This Disease is always to be esteemed more or less dangerous. If the Inflammation is but slight & the Part of the Lungs affected not very extensive (of w^{ch} may be judged by the slighter Degree of Tension & Pain in the Part) & if only one Lobe or Side of the Thorax — & if timely Means be used to put a stop to the Disease our Expectations may be answerable, & Prognosis a happy Issue; but when the Disease is of some — standing the Inflammation high, the Obstruction great & in

both

both ~~the~~ Lobes of the Lungs & all the Symptoms violent then there is but little Hopes nay the Danger is too alarming to expect a safe & perfect Recovery. Sometimes indeed it terminates in Gangrene or speedy Death: at other Times when not allogether so violent a Restoration to Health is slow & uncertain but what lies within the Compass of Art is not to be neglected. The following seems to be most rational & general Plan of treating it.

Methodus medendi

Our Indications are first to diminish the Quantity of Fluids & remove the urgent Symptoms, secondly to take off the universal Spasm wch seems to be present, thirdly to prevent a Relapse & strengthen the System.

First Indication viz: V:S: } In the Beginning of the Disease a large Quantity of Blood be let from a Vein opened by a wide Incision to lessen the Mass of Blood & diminish the Obstruction & repeated according to the Urgency of the Symptoms; but to be stopped in Case of a Diliqium animi being threatened least the Disease be rather increased; for want of a sufficient Force to propell the Blood on thro' the Extremities of the small Vessels. But to avoid the Inconveniency wch may ensue from Fainting it will be proper yt ye Patient during V:S: should be kept in a reclined Posture, wch pevents that Evil in a great Measure. Most commonly there is more Fear from V:S: performed too sparingly than Danger from bleeding to a ~~Diliquim~~ Diliquium. But when the Sputum appears tho' after ye first Bleeding, we are not to repeat it, especially if ye Breathing is eased: for by this Nature conquers ye Disease, therefore it must by

no

no Means be interrupted. Immediately after the first V.S: an emollient Clyster should be given such as the following viz.

℞ Decoct: Commun: pro Clyst: ℥xij
Ol: Olivar ℥j M.

It would likewise be proper twice or thrice a Day during the Cure of the Disease to inject about a Pound of warm Milk & Water wch will serve as a Fomentation to the Guts & keep the Belly easy wch is absolutely necessary thro' ye whole of ye Disease. But here we must take great Care not to throw ye Patient into a profuse Diarrhœa for thereby the Expectoration will be stopped & ye Patient be brot into greater Danger, consequently as we ought on ye one hand to avoid Costiveness on ye other we are to guard against too great a Looseness wch will suppress ye Expectoration & only weaken the Patient.

Second Indication to remove ye Spasm.-

Our next Indication is to procure an Outlet to ye morbific Matter thro the Pores of the Skin &c.. This I would endeavour to accomplish by the Use of the warm Bath taking Care at this Time to exclude the Access of ye cold Air & have ye Patient well dried with warm Cloaths before putting him to bed, wch should likewise be previously warmed. I think this Method is preferable to any other when ye Disease arises from obstructed Perspiration & from what I have seen I am persuaded, that if timely used many obstinate Fevers might be cured wch frequently baffle the Effect of ye most efficacious Remedies. It operates without throwing any Thing heating into the Blood & can be removed at Pleasure. Is not the Skin so relaxed this Way as to require much less Force of the Heart & Arteries to push forward the Sweat than by any other?

It

moist air — It will be quite requisite that ye Patient Breathe an Air moderately moist & warm to relax the Constrictions on ye Vessels of ye Lungs & remove ye Obstruction by opening those Passages thro' wch ye Matter can most easily & readily be evacuated. To this End Cloths dipped in warm Water & applied to ye Mouth & Nose greatly conduce or let the Patient breathe in ye Steams of warm Water & Vinager placed at ye Bedside frequently thro' ye Day by Means of an inverted Funnel directing their Application to ye Parts. This will greatly assist to remove ye Spasm & bring a Flow of Liquor into the Trachea &c —

We observed when ye Sputum begins other Evacuations are to be avoided & we are to use our Endeavour to promote it in this Case an Infus: Lini or Marsh: Mallows Root sweetened with honey Liquorice or Oxymel with the Addition of a little Nitre is all that seems here to be necessary these are to be drank in small Quantities at a Time but often. Epispastics applied to ye Chest or Extremities relieve the Breast & promote Expectoration. Whereas V.S. must not be used here but with ye greatest Caution & never unless ye most urgent Symptoms require it. To promote Expectoration Sperma Ceti will likewise be of great Service unless it brings on a Nausea in wch it should be laid aside. Besides what is — already directed Nothing can be more useful than such cooling Drinks as ye following wch will dilute relax & promote Expectoration & should be drank freely viz thin Whey, Decoction of Barley with Figs or Stoned Raisin moderately acidulated with Nitre, Infusions of Ground: Ivy acidulated with Lemon: Juice or sweetened with Honey & rendered gratefully tart with Vinegar.

as

As to opiates I would not venture to use them till yᵉ Fever is over & sleep seems only to be prevented by a thin Rheum falling on yᵉ Lungs raising a Cough & then I would join them to expectorants as Oxymel of Squills if yᵉ Body is costive or Salt of Harts-Horn if soluble.

Third Indication
to prevent a Relapse }

To answer yᵉ third Indication wᶜʰ is to guard against a Relapse by avoiding yᵉ cold Air perhaps a Flannel Shirt next yᵉ Skin is yᵉ best Preventative. Our Patients Body if much weakened by yᵉ Evacuations &c. must be gradually strengthened first by gentle Exercise till his strength will permit yᵉ Use of more violent, as riding &c. The Use of the Bark & Steel are yᵉ properest Medicines.

If a Spitting does not come on by yᵉ third or fourth Day of a yellow or whitish Colour of a due Consistence & Quantity if yᵉ Cough also is dry & perpetual & yᵉ Fever high, there is great fear of a Suppuration wᶜʰ is to be prevented if poſsible by every Aſsistance within yᵉ Compaſs of Art. The principal Part we are to have in View besides yᵉ Medicines already directed is to keep yᵉ Fever within due Bounds at yᵉ same Time to watch with yᵉ most vigilant Care not to leſsen the Fever too much least it be objected with too much Propriety — "febrem minuendo hominem jugulasti" for this being brought too low yᵉ vital Powers are not sufficient to propell yᵉ ~~Blood~~ Fluids with that due Degree of Force wᶜʰ is neceſsary for the Resolution or Digestion of yᵉ crude morbid Matter as
either

either the first may yet be hoped or the latter expected.

Signs of Suppuration } But if ye Signs of a Suppuration come on such as a dry & hard Cough about ye fifth, sixth or seventh Day after an encreased Difficulty of Breathing ye Patient lying up:on ye affected Side; new Pains from ye spreading of ye Infla:mation, a Fever kept up all ye Time increasing about Night. Then particularly ye internal Surface of ye Lungs in the Beginning should be moistened by ye Steams of Water & Vinegar taken in by Inſpiration as before directed, In order to relax ye Constriction of ye Veſsels, to attenuate & loosen ye obstructing Matter whereby ye Emiſsaries may it into ye Trachea &c. soft oleaginous & cooling Ptisans should be given as Solutions of Gum: Arabic & Nitre. When however ye Suppuration does actually take Place or a Vomica is formed we should endeavour to gain an Exit to ye Matter by procuring a Rupture of it wch is to be attempted by relaxing ye Parts first in ye Manner already mentioned & the exhibiting an Emetic & repeating it if neceſsary, or if it breaks itself & ye Discharge is not suf:ficiently free small Doſes of Ipecacuanha or an Oxymel Vomit would be extreamly proper to facilitate it & to open the Paſsages more freely into the Branches of the aſpera Arteria which being effected the chief hopes of a perfect Recovery of Health will consist in a Milk: Diet

Milk-Diet wholesome Country Air & moderate Exercise as soon as the Fever is so much diminished as to allow of it; which are to be continued for a great Length of Time to prevent any Danger of a Relapse.

But as a more full & particular Diſcuſsion of this Iſsue of a Peripneumony by Suppuration & Vomica seems properly to belong to the Subject of Phthisis pulmonalis it is therefore more methodical to refer to this Head for their Treatment in a more minute & exact Manner.

A Diſsertation on a Phthisis pulmonalis

At my first Entrance upon this Subject I am fully aware of its Importance & ye Difficulties wch I must meet with, in treating of a Disease wch requires such a comprehensive Knowlege of every Branch of Medicine. Perhaps amidst ye great Variety of Disorders to wch this tender & complex Machine of ours stands exposed, no one requires a more universal Knowlege of its Functions in order to treat it with Skill & Judgment than this in wch we are to engage, since small Errors seemingly in this Complaint often lay a Foundation of ye most pernicious & fatal Consequences. Its Treatment must also be very different in ye different Stages of ye Disease & is to be diversified very much (especially in ye Beginning) according to ye Cause producing it, to ye Symptoms wch accompany it & to ye Effects wch any Medicine may have on ye Patient or according to his particular Idiosyncrasy, his Strength of Body, his natural Constitution & Temperament & ye more slow or quick Approaches of ye Disease - all wch make a prodigious Diversity in ye Treatment more so than in most other Diseases.

Further it will admit of no neglect or delay with Impunity. It demands ye greatest Attention & Sagacity as it is seated principally in so noble a Viscus, one so very essential to Life, wch cannot be injured without great Disturbances to ye most Important Functions in ye animal Oeconomy: For ye Lungs are ye principal Organs of Sanguification, the Comminution & Attrition of ye Chyle in these are indispensably necessary to y^e Offices of Nature (vide Huxham: Prolegom: Pag: 3) on these depend Nutrition & muscular Motion, the Blood being never employed for these Purposes till it has gone thro' y^e Circulation of y^e Lungs: w^ch is evident from y^e Blood employed for y^e Nourishment of y^e Heart & Lungs, being returned to y^e right Ventricle of y^e Heart, by y^e coronary & bronchial Veins & not suffered to mix w^th y^e Blood in y^e pulmonary Veins w^ch is fit for Nutrition & muscular Motion, till it has passed thro' y^e common blood: Vessels of y^e Lungs to undergo some Change there necessary to Life.

The Lungs labor for y^e whole Body & y^e whole Body must suffer with y^e Lungs. 'Tis also a Kind of Compendium of y^e Body it has all y^e ~~same~~ Vessels as any other Part & receives every Humor w^ch any Part of y^e Body is afterwards furnished with, y^e most thick Fluids are attenuated in y^e Lungs, it acts upon y^e whole Mass of Blood & in as much as every Humor is contained in y^e Blood, it act upon all our Humors. It is first in receiving y^e crude Matter of them all, it is y^e first in concocting it, & rendering it fit to pass thro' y^e different Vessels & to convert it into [illegible] animal Nature. As y^e Action of y^e Lungs increases or decreases so does that of y^e rest of y^e Body upon y^e Humors. When it decreases y^e whole Body wastes, y^e Change of y^e Ingesta into Blood begins to cease. The Heart is impeded in its Office for want of y^e necessary Supply of well elaborated Blood, its Action is weakened; But y^e Efficacy of all y^e Vessels to transmit their Humors depends upon y^e due Application of y^e Action of y^e Heart; so that when y^e Lungs fail all fails. And since all y^e Fluids w^ch are prepared ~~first in y^e Lungs~~ in y^e human Body are necessarily prepared first in ye Lungs, therefore from the encreased Action of ye Lungs, they are all too soon assimulated & ye Body bro't towards a State of Putrefaction, & this takes place in all ye Humors at ye same time, Hence ye perpetual Necessity of a new Supply of Food in a crude Condition to resist Putrefation. If ye Action of ye Lungs be lessened every thing is more slowly or not at all assimulated whence Crudity Indigestion &c & a Depravation of all ye Humors of ye Body (vid: Hal: in Boerh: Prælec: vol: vj Pag: 200 & sequent)

From ye Multiplicity of Things wch offer to be discussed when we would give any general & Extensive Notion of ye injured ~~Fun~~ Functions of ye Lungs, or speak of ye many Causes wch may concur in producing that State of it wch we term a Consumption of ye Lungs, I may hope to be pardoned if I handle a Number of them with Brevity & to be indulged if I seem very minute in others since I wish in this Dissertation to give some Sketch of all ye different Origins of a Consumption, as far as may be compatable with Time & Oppertunity & enumerate ye several Symptoms wch appear peculiar to it from ye different Causes & point out in a general Way, ye respective Indications whilst I may take ye Liberty of dwelling a little longer on those Parts wch seem to be less commonly attended to, or from their greater Importance merit a more full Examination.

A Phthisis Pulmonalis is a Wasting of ye Whole Body with a slow Fever & Cough from an injured State of ye Lungs wch if long continued will affect ye Blood with a purulent Taint.

That Wasting of ye Body wch denominates ye Disease to be a Consumption does not immediately supervene upon every Ulcer of ye Lungs, upon some not at all, as when an Abſceſs or Vomica bursts suddenly, & ye Matter is entirely & quickly dis:charged by ye Aspera Arteria, & ye Ulcer is then expediciously cleansed & effectually consolidated by proper Medicines, there is no Danger of a Phthisis; but if it be at all neglected we may well expect it will gain Ground, or if injudiciously treated it will daily become worse & worse till a Phthisis ensue. A Peripneumony may produce a Suppuration in ye Lungs & yet be safely healed without producing a Consumption.

Besides ye Wasting of ye Body wch always attends, there are some other Symptoms wch are wont to be observed in a confirmed Phthisis peculiar to it vizt a Cough with a Discharge of purulent Matter to wch add a Hectic Fever wch has Exacerbations an Hour or two after Eating   vide Sylv: Pag: 609 de Phthisi

But ye Cough with a pining away of ye Body are to be considered as ye Pathongnomonic or never failing Signs of this Disease.

A Phthisis may be variously considered either as ye Lungs are primarily affected & ye purulant Taint communicated to ye Blood in Consequence of this Affection of ye Lungs or as these become diseased in a secondary Manner from an Ulceration of some other Part, whereby ye Pus produced in that is bro't to ye Lungs & vitiates them, or from a Disease of ye general Habit, in wch all ye Humors are contaminated & ye Lungs suffer from thence. This is well worth attending to since each of these Particulars require our utmost Notice & a various Management.

From this View then of ye Subject, I think it will not be amiſs to consider a Phthisis in its three different Stages:– 1mo As incipient or imperfectly begun – 2do As now quite formed — 3tio As it is in a confirmed & more advanced State. Of these we shall point out ye most considerable Symptoms, & hint at ye Method of Treatment so different in each. This appears to me so much ye more systematical & necessary as in ye first Division, ye different Sources of a Phthisis or the immediate proximate Causes may be properly considered as so many Heads & ye more remote Causes may be ranged under these Classes severally, where we can explain ye Manner in wch they predispose to ye Disease as far as ye narrow Limits of this Paper will allow.

According to ye foregoing Distinction we can consider an incipient Phthisis as taking its Rise from four principal Sources viz primarily, as ye Disorder is seated in the Lungs,

1mo An Hæmoptöe
2do A Catarrh or dry Cough —
3tio Tubercles of the Lungs.
secondarily 4to As it is ye Consequence of a Disease seated in some other Part than ye Lungs or in ye general Habit of Body.

First of an Hæmoptöe — This is commonly owing to internal Causes principally, a delicate Constitution, an hereditary Disposition, or a Mal-Conformation of ye Chest — But frequently arises (or is promoted) 2dly by any Violence done to ye Lungs, as from a Cough, Vociferation, Passions of ye Mind or a quicker Circulation of ye Blood thro ye Lungs in running or violent Exercise — 3dly From Errors in Diet or Diseases as Tubercles &c — or 4thly A Stoppage of any natural Evacuation or a Plethora from ye Loss of a Limb.

The delicate Constitution abovementioned may in Fact be ye same with ye hereditary Disposition except that ye former may happen to such whose Parents were healthy & ye weak Stamina may be owing to some other Cause in early Infancy with wch we are not acquainted, than a weak or faulty Stamina of ye Parents. But ye hereditary Disposition implies some secret Fault in ye Constitution transmitted from ye Parent to ye Child by an internal similar Configuration ~~of~~ of Body, on wch ye Disease depends & wch is probably communicated by ye same Laws & in ye same Manner as we often see an external Likeness of Feature & exact analagous Proportion of Body & Limbs.

We trace ye Marks of it most ordinarily in Persons of a sanguinary Temperament, those who have fair Hair, a delicate Complexion & a fine Skin thro' wch ye smaller blood:Vessels are easily discovered. 'Tis also observed often in the melancholico: sanguinary with black Hair & a fair Skin & in those who have long Necks & narrow flat Chests, and Scapulæ depressed, who are commonly remarked to be very spightly & of a sharp penetrating Genius.

The Temperament we have described shews a Weakness & Tenderness of Vessels & a Fullness of Blood; the make of Body & mal: Conformation of ye Breast denotes small & confined Lungs thro' wch ye Blood circulates with greater Difficulty, & ye Subtlety of Wit argues a very delicate Mobility or great Irritibility of ye nervous System, by wch ye Mind readily operates on it.

The Hæmoptoë from this Cause comes on about ye Time of Puberty, when ye Body having arrived to its ακμε ye Vessels have aquired such a Firmness as resists a further Extension, hence ye Æquilibrium between ye Solids & Fluids is affected & a Plethora is produced, since there is no further

Increase of ye Solids wch used to employ some Part of ye Blood wch is now accumulated in ye System; & since it must all pass thro' ye Lungs if these are weak 'tis no Wonder a Rupture of their Vessels are then produced & ye extravasated Blood — irritating ye Parts is discharged by coughing.

A Wound in ye Lungs by any sharp Instrument may produce an Hæmoptöe, or from a Bullet, also a Blow or a Fall may burst some of ye Vessels as well a Vociferation, violent Exercise, Anger &c wch determine a quicker Flow of Blood thro ye Lungs as well as any acrid, sharp stimulating Food, wch may also accelerate ye Circulation or by rarifying ye Blood encrease its Bulk, & if ye aforementioned Conditions had taken Place (as is easily understood) the Fluids readily burst thro ye tender Vessels. Tubercles of ye Lungs from Irritation, a great Derivation of Blood, & Friction may produce an Hæmoptöe. A violent Cough gives a sudden Concussion to ye whole Body as well as ye Lungs to wch however ye greatest Violence is offered & being of a tender friable Substance it is not to be wondered if a Vessel should be ruptured whence from a supervening discharge of Blood an Ulcer & Phthisis may easily follow.

A Suppression of any natural Evacuation may equally produce ye same Effect because that being retained wch ought to have been discharged, it so far Increases the Quantity of circulating Fluid & augments ye Plethora. On ye same Account if a greater Part of one of ye larger Extremities be amputated there is ye same because the aimapoietic Viscera are equally sound & makes as much

much Blood as before, but ye Part thro wch ye whole is to circulate is less hence a Plethora & greater Fulness of ye Vessels of ye Lungs already too weak whence on ye least Occasion a Rupture ensues. (vid: Friendii Emmenologiæ Pag:105)

Women seem to be less frequently subject to Hæmoptöe than Men on Account of ye natural Outlet wch is procured to ye superabundant Blood by their monthly Evacuations; but these being suppressed are equally liable to it with Men if not more so on that very account of a greater Accumulation & more tender delicate Structure.

When ye Hæmoptoe proceeds from an external Cause & is not very violent, but ceases within a few Days, & leaves no bad Symptoms behind; or if it takes its Rise from a Plethora or a Suppression of any natural Evacuation as ye Menses &c -- & is free from Fever & stops upon procuring a return of ye Evacuation we may hope by preventing a new Plethora & avoiding ye same Causes wch before excited it that ye Patient will get ye better of it without experiencing any very bad Effects. But if it be from an hæreditary Disposition, a Mal-Conformation of ye Breast & ye Patient is of a delicate Constitution & bad Habit of Body, & it has been of a long standing with a heavy Pain & Troublesome Cough or if accompanied with a constant slow Fever, there is ye utmost Danger of its speedily terminating in an open Ulcer & confirmed Phthisis, wch it is our Business to guard against if possible & prevent ye Evil wch will otherwise ensue "Cum prudentis sit prævenire mala, ne ab illis præveniatur"

The first Indication is to lessen ye Plethora V:S: answers this end most effectually & is first to be ordered.

When there appears to be a topical Inflammation & a phlogistic Crust & great Fullneſs of Veſsels, a large Quantity is required to be taken away at once; but if ye Patient is of that Habit wch is called Phthisical, & we have any Suspicion of Tubercles in ye Lungs keeping up an Irritation & occasioning the Spitting of Blood we must then use ye Lancet with more Caution, only taking away such a Quantity of Blood as may remove ye present Irritation, since ye Cure depends much leſs in this Caſe on ye Depletion of ye Veſsels & large Evacuations only weaken ye Body & hurry on ye Disease.

Laxatives are required to keep ye Body moderately open in ye inflammatory State wch generally attends & wch is always increased from Costiveneſs. As we do not mean to debilitate ye Patient by purging, the Antiphlogistic Kind only can be employed with safety; ye aloetic Purges are therefore improper as they rarefy ye Blood by their heating Quality & quicken ye Circulation too much. Flores Sulphuris are ye best laxative as they have not any heating Quality & by many are imagined to be poſseſsed of extraordinary pectoral Virtues.

In answering ye preceeding Indication & by preventing or leſsening ye Flow of Blood to ye Lungs we may hope to procure a Stoppage of ye present Flow of Blood from its Veſsels. To obtain this End more effectually Refrigerants are next employed these are ye neutral Salts. To explain their Action aright & to know when they are most properly given, we must take Notice, that a Constriction of ye Veſsels on ye Surface of ye Body frequently attends Hæmorrhages as well from ye Lungs as ye Nose & other Parts, wch makes ye Flow of Blood more difficult thro' ye constricted Vessels & encreases ye Flow into ye Lungs & Neutral Salts by their sedative Quality take off these Constrictions & temporate ye Flow of Blood thro' ye Lungs whilst a freer Determination is procured to ye Surface of ye Body — But amongst ye neutral Salts, there is a Choice to be made as some of them more than (as well as Acids) pass ye mucous Secretions & stimulate ye Bronchia & therefore are to be avoided in ye Hæmoptoe or that Species of Hæmorrhage wh so often lays ye Foundation of a Phthisis — such Effects are often observed from Nitre. Glauber Salts are much for their Refrigerant Quality when given in a small Quantity as ʒß & frequently repeated & is said to be free from that Property of Nitre irritating ye Bronchia & raising a Cough — as Dr Cullen observes —

By a different Management ye neutral Salts may be made to act as Diuretics, Diaphoretics or laxatives — If given in large Quantities at a Time as ℥ß or ℥j they prove laxative, if in a somewhat less Dose, they determine a greater Flow & Secretion by ye Kidneys, especially when ye Body is kept cool, & any watery Fluid is given at ye same Time; but in a smaller Quantity still & often repeated they produce a Diaphoresis, & more effectually so, if this Operation be encouraged by warm Drink or Bed-Cloaths. (this by ye by) If ye Disease arises from a Stoppage of any natural Evacuation by restoring this we have ye best hopes to remove it.

The second Indication is to consolidate ye Vessels & to guard against a Relapse. To answer this, ye following Remedies are often employed with Success viz — An Antiphlogistic Regimen, Demulcents, Astringents, Chalybeates & Roborants. Blisters & sometimes with great Caution Exercise, Emetics, Opiates &c — of wch we shall speak in their regular order.

Antiphlogistic Regimen — Under this we comprehend *Food*, *Drink* & *keeping ye Body cool*. *Vegetable & Milk Diet* is such as is of easy Digestion & occasions leſs Fever than more solid animal Food &c — *For Drink* Whey, Milk & Water & weak Punch are proper — & *Keeping ye Body cool* by a proper thin Dreſs & an airy Room is neceſsary, with a moderate Climate since Heat from too much Cloaths, a close Room, or a hot Climate occasion a pernicious Rarefaction & Turgency of ye Blood: Tho' too much Cold either in Climate or Dreſs &c would be equally pernicious. "Medio tutiſsimus ibis."

Demulcents are ordered on a Suppoſition of ye Blood being in a saline or acrimonious State in phthisical Caſes, & certainly ye Blood extravasated in ye tender Substance of ye Lungs if it is not immediately discharged, by Confinement & Delay it acquires an acrimony wch may urge on to Ulceration & taint ye Blood. When this happens mucilaginous Medicines are very suitable; but this belongs more properly to a different State of ye Disease, as they may be treated of very well when we come to speak of sheathing ye Acrimony & promoting Expectoration under ye Head of Cattarrh —

Astringents — Under this Claſs Acids are sometimes ranked; but their principal Effects being sedative & temperating ye inordinate Motion of ye Blood they ought to be considered as Refrigerants having much ye same Effects with some of ye neutral Salts as Nitre &c. The stronger Astringents cannot be used here, since they do not so far enter ye Blood as to have acceſs to ye Part & by their strong Stimulus prove very hurtful.

On this Account & ye strong poisonous or narcotic Quality of Lead its Preparations are forbid, or are to be used very sparingly & with ye greatest Caution.

The milder Astringents of ye vegetable Kingdom may be used with safety & often with great Succeſs—such as Tuſsilago Red: Roſe Leaves or Petala, mallows Roots, Plantain &c—

Roborants & Chalybeates — Preparations of Iron & ye Bark are recommended as astringents also; but since their Effects in an Hæmoptöe does not seem to be topical & they cannot be applyed to ye Part so as to close ye Mouths of ye Bleeding Veſsels & their Efficacy seems to be owing to their strengthening ye whole System & so acting on ye Lungs secondarily. They ought not to be ranked in this Claſs; but rather be considered with ye Chalybeates under ye Roborants as one of ye same, since ye Virtue of ye chalybeate seems to be so much dependant on its strengthening Quality. Neither of them ought to be given when there is any Tubercle keeping up ye Irritation & spitting of Blood or when ye Disorder is far advanced, or where there is a continual Fever kept up, since in these Cases Chalybeates encrease ye Inflammation & Bark is to be objected to with equal Propriety. This indeed is of most excellent Use where ye Disorder comes on in Paroxysms with all ye febrile Symptoms of a Stricture on ye Surface of ye Body, shivering followed by Heat: for then if there is no inflammatory Diathesis, ye Bark by stopping ye Acceſsions of Fever does ye greatest Service in preventing a Relapſe.

Impregnations of Steel or ye Chalybeate Waters are esteemed preferable to preparations in a solid Substance. These Medicines are particularly useful, when ye Disease appears to proceed chiefly from a Relaxation of ye Veſsels.

Blisters, Seatons & Iſsues are useful Hæmoptoe & Phthisis when applyed near to ye Part affected. The Blisters are useful in taking off Spasms when these prevail & they all have a good Effect by producing a Revulsion of ye noxious Superabundance of Humors into these artificial Ulcers & external Drains wch convey it out of ye Body.

Exercise & fresh Air. When there appears to be a Relaxation of ye Veſsels, Exercise used moderately braces up ye Body & strengthens ye Tone of ye Veſsels; but where an Hæmoptoe is not ye original Complaint but proceeds from a Tubercle, or where there is yet an Inflammation or Irritation kept up it must be pernicious: when allowable it should be of it should be of ye gentlest Kind, at least to begin with, such as Sailing, Riding in a Machine with Springs & in ye open Air wch moderately expanding ye Lungs renders ye Circulation thro' it easier. But violent Exercise must be hurtful, since all muscular Motion urges ye venal Blood more briskly to ye right Cavity of ye Heart & increases it's Impulse thro' ye Lungs, wch whilst in a tender State & ye Veſsels ruptured must be as difficultly healed as a fresh Sore in any other Part continually fretted by rubbing.

Emetics & Opiates. We have deferred ye Consideration of them because their Use cannot be often allowed & requires as much Caution as we have given on Exercise.

If Emetics are useful at any Time it must be as in ye Case of ye Bark where there are Paroxysms of ye Disease & a Fever accompanying: Then may be useful in terminating ye Fever & making for ye Use of ye Bark but should be used in small Doses least the Straining should rather encrease than leſsen ye Disease.

Opiates may be sometimes useful, but in a very small Quantity, when too much Watchfulneſs or an Irritation requires it then are useful by procuring gentle Slumbers an easy Perspiration & a Freedom from Cough Yet their Use are seldom allowed

&

& never to be indulged where there is an inflammatory Diathesis, as they produce a Rarefaction of ye Blood a Turgency & increase Inflammation. But when attended with a Catarrh in wch ye acrid Matter excites a troublesome Cough it is allayed by a prudent Use of Anodynes wch by allowing ye acrid Humors to remain sometime they become thicker & more easily expectorated.

But if ye Disease is very obstinate or has been injudiciously treated or altogether neglected ye extravasated Blood confined in ye cellular Substance acquires Acrimony wch further destroys ye neighbouring Parts & converts ye Rupture into an Ulcer gene:rating Matter at first collected collected perhaps in a concealed Vomica but afterwards becoming an open Sore, daily more foul & sordid whilst Part of ye Matter is absorbed into ye Blood affecting it with a purulent Taint, rendering it unfit for Nourishment & for ye Formation of sound good Humors. The Disease now becomes a true Phthisis according to our Definition; but before we enter upon this second Stage, we must speak a little of its second Source marked out — i:e: as arising from a Catarrh.

2 A Catarrh is a copious Discharge of a mucous Humor expelled from ye Bronchia & Larynx.

The general Causes of it are a Change of Weather, Damps, Vapors or ~~moist~~ Exhalations from moist fenny Places & sudden Exposition to Cold, as coming out of a warm Room, or Sweating with any Exercise & setting still in ye cold open Air, wet Cloaths from Rain & ye like. Particular Circumstances dispose to tak:ing Cold (as it is called) more readily at one Time than another, as Grief, Debility from excessive Venery or a Debauch, or a Stream of cold Air applied to a particular Part as thro' a broken Pane of Glass. Some from a Fault in ye Lungs or a bad Conformation of ye Breast, or particular Sensibily of ye nervous System take Cold on ye least Accidents more readily than others & some at a

particular Time of Life as at ye

particular Time of Life about ye ακμε are most obnoxious to it.

A Catarrh is generally imputed to an obstructed Perspiration; but it seems to depend chiefly on ye Pressure of ye cold Air upon ye Surface of ye Body occasioning a greater Determination of ye Blood to ye Lungs, as an obstructed Perspiration often happens without a Catarrh & vice versa. It commonly begins with a Sneezing & a Coryza, or thin Discharge from ye Membrana Schneideriana lining ye Inside of ye Nose & Fauces & is propagated along ye Membrane lining ye Aspera Arteria it washes off ye bland Mucous, & leaving ye Nerves now exposed, these are liable to a kind of frequent Convulsion or Sneezing on being irritated by ye acrid Matter this is then communicated to ye Lungs & ye Secretion of this thin Fluid on ye Part produces a Cough & is generally attended with a quickened Pulse. The Mucous from being thin & fluid at first by stagnating becomes thicker & ye Appearance changes as well in Color as Consistence from whitish thin & ropy it becomes more yellow & viscid, not very unlike Pus mixed with Phlegm. In ye Beginning ye Patient has commonly an Horripulation or Sense of Cold creeping over his Body, a Languor, & Lassitude, a Pain in his Head & Heaviness from ye Stuffing up of ye Vessels & a Swelling of ye Membrane of ye Nose: The Trachea seems to be dry, ye Voice Hoarse, the Thorax constricted & ye Lungs stuffed up, a Difficulty of Breathing & from ye frequent Cough a Pain below ye Sternum & a Fever increasing about Evening sometimes ye Eyes appear inflamed & ye Appetite is gradually impaired. Such Complains are often neglected, till they have gained Ground, & a Phthisis approaches; but to prevent this we ought to keep in view ye following Particulars. viz

1st To remove ye Inflammation & Fever.

2dly To procure a Determination of ye Blood & Humors towards ye Surface of the Body.

3dly To correct the Acrimony.

The first is obtained by *V.S.* especially in an inflammatory Diathesis & only such a Quantity of Blood being taken away as ye Strength of ye Patient would allow & ye Vehemence of ye Symptoms required, has often proved a speedy & effectual Cure. The *Antiphlogistic Regimen* is very proper, of wch we spoke when upon ye Hæmoptoë: also a gentle *Catharsis*, or keeping ye Body open by mild laxatives especially ye neutral Salts as before recommended: & Refrigerating diluent Drink in great Plenty with Nitre, it should be cooling and acescent or moderately Acid to attenuate ye Blood &c - The Air temperate & moderately warm.

The second Intention is answered by *Emetics*, *Diaphoretics or Sudorifics* & moderate *Exercises*.

Nothing is more effectual in taking off ye Constriction of ye Vessels on ye Surface of ye Body & determining ye Blood towards ye Skin than *Vomits*. How often immediately upon does ye Patient get rid of his febrile Rigor & perceive a fine Glow over his whole Body.

Pectoral *Diaphoretics* as they are called seem to do more good, by a Derivation to ye Skin & Kidneys than by promoting a Secretion of Mucus (vid: Fordyce de Catarrho Pag: ult:) - Such as Assafœtida, Ammoniacum &c are often more efficacious than ye antiscorbutic Plants or Cepacea as Squills, Garlic, Onions an ye like.

We are not in all Cases to use heating Medicines in Order to excite a Sweat, especially when an inflammatory Diathesis prevails, because we cannot always obtain a salutary Crisis in this Way; & such Medicines if they don't do good, will surely do hurt by their Stimulus. The most safe Way of attempting a Sweat is by ye Use of Warm diluting Drinks & covering well with Bed-Cloaths to determine to ye Skin by wch means when ye Perspiration begins to be increased ye Matter is retained & ye Body surrounded with a Kind of warm & moist Atmosphere from it's own Vapors & relaxes all ye Pores whence follow a plentiful Sweat. Next to wch if there is no Inflammation an Opiate may be given as one of ye most effectual Medicines for this Purpose.

The Exercises here mentioned as ye last means of restoring the Determination towards ye Surface of ye Body wch will keep it up more steadily & more certainly than ye præceeding, are those of Gestation as they are called such as Sailing, Riding on Horse:Back or in Chaise & not those Exercises of ye Body wch require a strong Action of ye Muscles, because they urge the Return of ye venal Blood to ye Heart & propell it too quickly thro' ye pulmonary Vessels, unless there is no Sign of Inflammation, & this must be in some Measure removed before Riding or Horse:Back is safe nor is it to be allowed in ye Beginning when ye Patient is liable to take fresh Cold.

Sailing is one of the most effectual as ye Motion is so gentle æquable & may be continued for a long Time together & be kept up steadily without any Exertion of muscular Action, such as bodily Exercise requires & answers best for weak Constitutions.

Riding in Chaises is also very useful also, where riding or Horse:Back can't be so well indulged; but ye Patient should not shut himself up in them too closely; but chuse a pure & fresh Air, wch he can allow the Chaise to be pervious to, by letting down ye Sash. Sometimes a cold Air joined with Riding is known to restore ye Determination to ye Surface of ye Body very efficaciously. By long Journeys on Horse Back many obstinate Catarrhs have been cured, wch had resisted all the ordinary Means of Cure. But if Tubercles are suspected Riding on Horse:Back is not to be allowed.

The third Indication is to correct or sheathe ye Acrimony for which Purpose Oily & mucilagenous Medicines are generally used, such as ye expressed Oil of Vegetables & Sperma Ceti; but ye bland Mucilages are to be præferred as more agreeable to ye Stomach & not hurting ye Appetite, such as Decoctions of Rad: Altheæ, Glycirrizæ, Seminum Lini, Hordei, to these add Succ: Glycir:, Mel, Sacchar: condit: &c — the mucilagenous Gums of Arabic & Tragacanth are justly celebrated for ye present Intention; but where oily Medicines can be thrown in without injuring ye Appetite or overloading ye Stomach they will be more effectual.

The Effects of mucilagenous Medicines to allay ye Cough & promote Expectoration is owing to their quieting ye Tickling at ye Glottis. wch is ye Janitor of ye Lungs & Constrictor of ye Larynx & is more sensible than any other Part of ye Bronchia a wise Contrivance of Nature to guard against ye Ingress of mischievious Substances, by raising a Cough & expelling ye noxious Body. These medicines therefore prove most efficacious when put on ye Tip of ye Tongue & swallowed leisurely. Sometimes we add a little Acid to them, wch stimulates ye Glands & makes them pour out their Mucus, wch is a natural & bland Mucilage, guarding most effectually against any Irritation. The sedative & stimulant Properties of Acids are very reconcileable a well as stimulant & antispasmodic— Another Way is to imitate Nature, when there is little Fever or Inflammation by procuring a Delay to ye Discharge & so giving ye Humor Time to stagnate whereby it becomes more ~~[illegible]~~ concocted, thicker & milder, ye Heat serving to destroy its Ropiness. And ye Irritation from ye acrid Humor may be quieted by ye Syrup of Popies, or gentle Opiates & ye Cure may be safely trusted to them after ye Inflammation is gone, if no Tubercles are left behind from ye Disease; wch is but too common an Effect of it & then Opiates would prove but a dangerous palliative & are therefore to be avoided as well as Riding &c mentioned already. But 'tis now Time to consider ye third Source of Phthisis or Tubercles a little more fully.

3d. Of the third Source or Tubercles of ye Lungs—

Dr Cullen of Edenburgh tells us that neither Hæmoptöe nor Catarrh bring on a Phthisis very quickly of themselves, & gives it as his Opinion that they never or seldom terminate in this Manner; but in Consequence of Tubercles being first formed in ye Lungs, & observes that a Phthisis very frequently arises from all these Sources united. As the two former are easily cured when not produced by a Tubercle nor yet attended with or producing a Tubercle themselves he is led to consider this last as ye only true Source, & he thinks this to be confirmed by Dissection since ye Existence of Tubercles seems to demonstrate it in all the Lungs wch have been examined after Death of those who have died of this Disease appearing as such or as open Ulcers. He takes Notice of its commonly happening in a Plethoric State at a particular Period of Life, & where there is bad Conformation of ye Lungs, wch shews ye frequent Union of all those Causes we have mentioned as producing Phthisis, viz Hæmoptoë, Catarrh and Tubercle.

It may not be amiss to adduce here ye Conjectures of Sylvius wch point ye same Way. vid: §. 51. & seq: — He had frequently seen glandular Tubercles in ye Lungs of various Sizes, some larger and some smaller in wch a various Kind of Pus was sometimes contained he rationally concludes that these gradually suppurate & being enclosed in a small Membrane, are ye Vomicæ of ye Lungs from wch when open a purulent Consumption arises. He proposes these Tubercles as ye hæreditary Disposition to a Phthisis affirming that they increase with Age & tend gradually to Suppuration.

According to Sylvius they are ye conglobate Glands not always visible in a sound State; but when enlarged by Disease are seen over ye whole Body some of a prodigious Size. Such Glands are often seen much increased in Size in ye Mesentery from Obstructions formed there, as well as in ye Neck & other Parts in strumous Cases, wch become affected tho ye neighbouring conglomerate Glands are free from Fault. If this be admitted wch is so reasonable why may not ye Lymph passing thro these Glands become more acrid from various Causes & produce Obstructions in them? or why may they not be diseased from

Errors in Diet, any bad Quality of ye Air taken into ye System wth our Food & conveyed into ye Blood or in Respiration; from Passions of ye Mind; or an Inflammation of ye Part & thus lay ye Foundation of a purulent Tabes upon ye Accession of Hæmoptoë Catarrh &c.

A Congestion or Tubercles may arise in Consequence of a Pleurisy or Peripneumony as Abscesses or Schirri in Consequence of Inflammation in any other Part. Tubercles appear to be incysted circumscribed Tumors surrounded with ye cellular Membrane, wch stretches over them as they increase; but how they come to form particular Coats wch envelope them is not yet fully explained. They often arise in ye Lungs from a scrophulous & particular acrid Matter generated in other Parts, absorbed into ye Blood & deposited in ye Lungs as we see ye Matter of a Cancer absorbed producing Phthisis.

The Matter collected in these Tumors is very various sometimes it is a stony Matter, not to be accounted for so well from a Disposition of ye Blood, as a particular Disposition of ye Vessels modifying this Matter (vid: Barry on Consumptions Pag: 139)

'Tis a difficult Matter to ascertain ye Existance of these Tubercles, when there is no Inflammation present at ye Time nor Suppuration yet come on. If there are any Signs, by wch we can be assured of their being present they are ye following vizt — a Dry Cough both troublesome & frequent & this of a long Continuance with Difficulty of Breathing especially on Motion. But ye Circumstance from wch we judge of its Presence with the greatest Certainty is when together with ye preceeding there are external Marks of Scrophula, as ye Tubercles of ye Lungs are, I believe, most frequently of a scrophulous Nature. However they sometimes happen from a Cough, taking Cold or Inflammation in ye Part unconnected with that Habit. When in either

Case, there is an Increase of Pain & greater Difficulty of Breathing upon lying on one Side, we may suppose it to be inflamed, especially if there are Exacerbations of Fever after Eating or at Evening. And thus when we can determine ye Existence of Tubercles, we may judge of ye purulent State following them, even before we can see any Signs of it in ye Spittle or Urine.

The Change of a Tubercle to a purulent State is commonly accompanied with the Disappearance of ye red Vessels on the Tunica adnata of ye Eye wch are more or less evident and more or less numerous in all healthy Persons & a Change of Color from a dull white to a clear or more pure white. This I assert upon no less Authority than that careful observer of Nature in Diseases Dr Cullen of Edenburgh. Another more sure Sign is ye Change of Color of ye Tongue, which from a white Furriness observed on it before has now a clear red, which is always a Sign more or less of Hectic as are flushings in ye Cheeks, Palms of ye Hands & Soles of ye Feet. These with the foregoing Remarks are sufficient to give us Information in our Inquiry upon this Matter.

Cure — If we are satisfied of Tubercles being in the Lungs & that unconnected with Scrophula we are to aim at keeping them from a further Increase, or running on to Suppuration. Indeed it is to be lamented that we have so little Grounds to hope being ever able or but very seldom to remove these entirely by (the first Intention, shall I be allowed to term it) I mean by Resolution, since they seem to be of ye Nature of Schirri & so much out of ye Laws of ye Circulation when they have existed for any Time that we have little hopes of Medicines acting upon them by any emollient attenuating or discutient Quality & by that Means freeing ye Patient from all future Anxiety, which might indeed be attempted could we know when ye Disorder of ye Glands was incipient & the Matter fluxile by an antiphlogistic Treatment viz V.S. gentle Emetics, neutral Mixtures wch seem to have a resolv:ing Power, mineral Waters & gentle Exercise &c so as to render the Medicines more efficacious by quickening the Powers of Circulation a little & bringing them to the Glands to act more immediately & more strongly on them, are of great Use. But as little Access can be procured to the Part & as we cannot easily if at all know of their Existence till they have gained some Head & become ~~hard~~ therefore what we chiefly ought to have in View is to prevent their further Increase or Progress by guarding against ye Causes wch were supposed to have first produced them & against all such as can be supposed to have that Tendency, or such as may bring on Inflammation particularly the Patient should avoid taking Cold or violent Exercise, all stimulating or high seasoned Meats & spirituous Drinks every Thing wch can be thot to give an Acrimony to the Blood or vitiate ye Juices as well as Revelling & Intempe:rance, or Errors in the Non-Naturals. By which means if they cannot be totally removed; yet they may be kept under & a further increase or ye Suppuratory State and a Vomica or open ulcer be prevented

If we have any Room to hope that these Tubercles may be totally removed so many well attested Facts of the Cure of Schirri & Cancers by ye Use of Cicuta gives us some Room to flatter ourselves it is not a Thing impossible, I should imagine it must be from ye same or similar Medi:cines long continued, which acting powerfully upon the whole System or on the nervous Part of it, tho' in a Manner inexplicable to us often effects very surprizing Changes & I cannot but think Experiments in such Cases are well worth our Attention & utmost Pains in making them.

When these Tubercles are found to be owing to a scrophulous Habit & accompanied with Tumors externally from ye same Cause we should treat it with those Remedies wch are found most serviceable in that Melady vizt such a correct an Acid, wch is by many supposed to predominate in this Disease - as Alkalines, or Absorbents, ~~the~~ Burnt-Spunge, Os Sepiæ & mineral Waters, or rather Sea Water wch seems to be more powerful than any mineral Water whether sulphureous or chalybeate: tho' it must be confessed often fail however they are to be tryed for a long Time with great Constancy. Tussilago is recommended by Dr Fuller & often been found to have good Effects by Dr Cullen as well in ye fresh Plant as in ye expressed Juice or Extract. When ye Matter is fluxile or a Disposition to a Hectic Fever comes on Bark then is of excellent Use (vid: a Paper in ye London Medical Essays Vol: I. by Dr Fothergill) But this more properly belongs to ye next Head wch we now come to consider vizt The origin of a Phthisis from other Diseases.

IV. The Fourth Origin of a Phthisis pulmonalis, we reckoned the Consequence of a disease primarily seated in some other Part than ye Lungs, or in ye general Habit of Body.

We have illustrated our Sentiments on this Source already where we have been just speaking of it as arising from a Scrophula; but there we considered it rather as manifesting itself first in ye Lungs on Account of a Mal-Conformation or other predisposing Cause occasioning it in ye Beginning to shew itself there, & afterwards to be propagated to other Parts of ye Body; but if the Effects or Appearances of Scrophula are found to be in the general System as soon as in ye Lungs, or to have fixed on any other Part first & afterwards to be communicated to ye Lungs it yn most properly comes to be considered under this Part of our Division & what we have said there in ye Cure of it is sufficient for our present Purpose.

A Phthisis very frequently happens after acute Diseases as well as chronic Disorders, & altho we have considered a Peripneumony as ye remote Cause of a Phthisis when it leaves Tubercles behind, wh afterwards from concurring Circumstances produce a Phthisis long after the Termination of that Disease; yet when instead of its first producing Tubercles, as Inflammations in other Parts it issues in Suppuration it is then to be considered under this fourth Head. In like Manner when from ye Measles or small Pox ye Lungs become greatly affected from ye Violence of the Disease, or its fixing more particularly on this Organ & an Inflammation is ye Consequence issuing in a speedy Suppuration & Phthisis — We consider ye Phthisis to be ~~sym~~ symptomatic & more properly to be reduced to ye Source we have here marked out But it often happens that ye Fever & Symptoms accompanying ye primary Disease quite disappear, & ye Patient seems to be again in perfect Health; but from Tubercles or some Obstruction or Change left behind in ye Lungs, on some future Occasion a new Inflammation, Suppuration & Phthisis come on, wch then should be ranked under ye proceeding Class as requiring a particular Treatment; yet in ye Case we have just stated it is only symptomatic, & in ye Cure particularly, in ye Prevention is to be treated in a Manner which has a Regard to ye respective Disease of small Pox, Measles &c Here too we refer an Absorption of Matter in chronic Ulcers, or long continued Abscesses conveyed to ye Lungs & affecting them, without occasioning any Hæmoptöe, Catarrh or Tubercle first, to wch we can more properly attribute it. As an Example we may bring an Empyema after a Pleurisy, wherein from a Suppuration formed in ye Pleura a large Quantity of Matter is deposited in ye Thorax wch afterwards becoming very acrid produces an Ulcer of ye Lungs & by Absorption contaminates ye Blood & all ye Humors, this Phthisis is to be looked on as belonging to this Head.

Besides other Causes of Consumption an Infection is mentioned by some Authors to be productive of ye Disease, when ye Person breathes ye same Air with a phthisical Patient, especially if he holds his Mouth & Nose near that of ye Patient's for some Time together, & by that Means takes into ye Lungs ye putrid Effluvia just breathed from ye other. No doubt but it will often prove contagious, since we frequently see it communicated to young Persons of a tender Constitution, or who are any way predisposed to ye Disease, if they continue too long near ye diseased, especially in ye last Stage, when ye Putrefaction of all ye Humors is greatest by lying in ye same Bed: For then by ye Warmth of it & by Sleep ye Pores of ye Skin are all relaxed, & ye most noxious Sweats are imbibed into ye sound Body & affect ye Blood whilst ye Person breathes a putrid Atmosphere, wch is applied immediately to the Lungs, producing an Irritation, Inflammation & Erosion of ye tender Vessels. This should be a Caution to ye Relations and Friends to be careful in avoiding this Infection. Barry on C P 127

The Prevention of ye second Stage or thoroughly formed Consumption depends on ye radical Cure of ye primary Disease, the Treatment therefore must be different according to that Disease as it is the Small Pox, Measles, Abscess, Empyema, Scrophula &c.

for which we must refer you necessarily to those Authors who have wrote best on these various Subjects professedly & at full Length. To treat of ye particular Sources minutely as they ought to be discussed would enlarge this Dissertation & make it of itself a compleat Practice of Physic & Chirurgery.

Having thus gone thro ye first Part of our Subject and fully handled ye first Stage or an incipient pulmonary Consumption we come now to speak of ye second Stage when the Disease is quite formed. In this as well as ye last or advanced State of the Disease, we need not dwell so minutely on each particular that may occur, since if we understand what has already been so fully discussed concerning ye Causes, ye Symptoms arising from them, their Cure & Prevention, we shall find our Labor is greatly shortened, since these being so clearly explained & so largely insisted upon. what yet remains to be spoke of will be easily apprehended from a more brief Inquiry.

From whichever of the before mentioned Causes ye Disease takes its Rise whether Hæmoptöe, Tubercle or Catarrh, or whether from Pus formed in ye Lungs in Consequence of an Inflammation from a Pleurisy, Peripneumony, small Pox or Measles. whether from Scrophula, or from Pus formed first in ye Side any Collection of Matter within ye Thorax in an Empyema or Ulcer in another Part & transferred to the Lungs by Absorption or Metastasis we have said that ye Disease was properly denominated a confirmed Consumption or pulmonary Phthisis quite formed when a Suppuration came on in ye Lungs & a wasting of ye Body from ye purulent Infection of ye Blood. The Symptoms of this we now enter upon.

The

It is very evident & obvious that yᵉ *first* & *second* Stage have evident Boundaries betwixt them, that we can easily say where the *second* begins & where yᵉ *first* leaves off; but the Distinction between yᵉ *second* & *third* is not so plain, or indeed is rather artificial than natural the *second* continuing so long as yᵉ Symptoms give any Room to expect a Cure; but yᵉ *third* Stage is when these are so far advanced, yᵉ Patients Strength exhausted with *hectic Fever* & *Nocturnal Sweats* that little hope of Cure or a speedy Death remains: so that we shall not pretend to fix yᵉ exact Limits of each; but mention them in a general Way & give yᵉ Indications of them accordingly.

Diagnosis. The diagnostic Signs of yᵉ Disease are a preceeding Inflammation from a Hæmoptoë Catarrh Tubercle or other Disease, an obstinate Cough & difficulty of Breathing increasing after Motion or Eating, a Hectic Fever with Exacerbations after Meals, a Redneſs of yᵉ Cheeks, Night Sweats & especially if there is *Pus* with yᵉ Matter expectorated. There is not such a material Difference as some Authors have alledged whether yᵉ Disease be first seated in yᵉ pulmonary or bronchial Veſsels, since whichever it be in it is soon communicated to yᵉ others & yᵉ Method of Cure is always yᵉ same.

In the *Second Stage* we have yᵉ following Symptoms *A Dry Cough*, or *a Cough with an Excretion of Phlegm mixed with Pus* sometimes sinking in Water of a fœtid Smell mixed with Blood, or otherwise discolored, red, yellow, livid, with small Lumps A Discharge of Matter on yᵉ Rupture of a Vomica, a Difficulty of Breathing, loss of Appetite, a Wasting of yᵉ whole Body with Hectic Fevers, great Thirst, Debility &c—

In the Third Stage— An Increase of all those Symptoms Facies Hypocratica, a great Anxiety about yᵉ Præcordia especially in ye Evening, Night-Sweats, red Pustules on ye Body, a hoarse Voice, apthæ, a flushing in ye Palms of ye Hands & Soles of the Feet, Rubor Genarum, fœtid Stools or Diarrhœa colliquativa a Suppreſsion of ye Sputum a falling off of the Hair &c—

We proceed to ye Ratio Symptomatum. On each of these we shall be very short—

Dry Cough or Cough with an Excretion of Phlegm mixed with Pus &c

The Air when taken in by Inspiration & retained some time is rarefied by Heat, & by preſsing against ye Sides of ye Air Veſsels expands them, produces an Irritation over ye tender Surface of ye ~~distend~~ Part & if there are Tubercles a Tension & Friction, the Titillation raised in ye Part brings ye Muſcles of Respiration to act in a convulsive Manner & to expell ye Air with some Force: the same Motion is excited from any acrid Matter as that of a Catarrh & ye Air rushing out carries with it whatever sticks to ye Sides of ye Veſsels & preſses out from ye Lacunæ ye Mucus intended to sheathe ye Part & secure it from every Thing acrimonious. When this has been carried off & whilst there are Tubercles in ye Lungs or a concealed Vomica there is a constant Irritation but little Discharged or by ye Force of Concuſsion in Coughing ye Mucus is pumped up with ye Air entangled in it giving it the appearance of Phlegm; & if there is an Opening into any of ye Branches of ye Trachea for ye Pus wch is formed to be preſsed out it is mixed by ye Air with ye Phlegm & when ye Quantity is small by being thus entangled tis buoyed up in ye Water; but when discharged seperates being of greater specific Gravity than Water it falls to ye Bottom.

When ye Juices have been more vitiated & ye Pus undergone a greater Putrefaction, as all putrid Substances do, it smells very offensive. By ye Force of Coughing there is some=

:times a Rupture of ye small Veſsels whence ye admixture of Blood gives it a red Color. As it is more or leſs putrid, so also ye Color of it Changes, & as frequently some Part of ye Lungs or a Tubercle is coughed up, it has ye Appearance of little Knots or small Lumps mixed with it. When a Vomica bursts the Pus stopping up ye Air Veſsels into wch it has now acceſs threatens to strangle ye Patient till discharged by coughing wch brings it up pure & in large Quantities.

A Difficulty of Breathing arises from ye Air Veſsels being obstructed with Matter so that ye free Ingreſs of ye Air is impeded & ye Expansion of ye Lungs is not so easy as natural & this Difficulty of Respiration will increase in Proportion to ye Quantity of Matter.

Loſs of Appetite — A good Appetite & a perfect Concoction of our Aliment depends upon ye sound State of all Chylopoietic & Aimapoietic Viscera, by wch what is taken in may be aſsimulated into ye animal Nature; but where these are impaired in their Office want of Digestion follows & a Loſs of Appetite is ye Consequence, ye Stomach being affected with ye general Debility & loaded with crude unconcocted Ingesta — Nothing creates a greater Nausea than any Thing wch is putrid but in this Case ye Office of ye Lungs is diminished, ye Blood leſs perfectly elaborated, ye Body weakened & ye Humors putrid, so that ye neceſsary Requisites are wanting both to Digestion & Appetite.

A Wasting away of ye Body — As every Moment of our Life there is a continual Destruction of some Part of our Body now become useleſs for any other Purpose, & that neceſsarily from ye Action of ye vital Powers. If then there is not a constant supply equal to this Distinction ye Body must Decay; but whilst ye digestive Faculties are injured as we have just proven & ye Appetite is languid, ye Body must be subject to a constant Waste & gradually pine away. And this is further augmented by reason of ye Pus being absorbed into ye Blood, which produces ye next Symptom viz. *The Hectic Fever* by its constant Stimulus on ye Heart & Arteries increasing ye Frequency of the Pulse & *feeding upon* ye whole Habit of Body, melting down all ye Fat, & bringing on a universal *Leanness & febrile Heat* increasing after Meals from ye crude Chyle passing thro' the Lungs with Difficulty & giving a greater Resistance to the Blood sent from ye Heart, hence a more frequent Contraction of it to overcome ye Resistance & a quickened Pulse.

Great Thirst – The Sensation of Thirst is appointed as a faithful Gardian of the Body, to give notice of ye Approach of Danger from a Want of Fluidity in ye Humors or an Acrimonious State of ye Blood requiring to be diluted that it may be washed out from ye Body or rendered less injurious from its Stimulus on both wch accounts it is excited here: for by means of a Fever ye thinner Part of ye Blood is dissipated, & from the Pus with wch it is tainted it is become acrimonious.

The Debility is easily understood to be ye natural Consequence of ye Body pining away & for want of new Supplys ye Strength is continually more & more exhausted.

In the Second Stage *there is an Increase of the foregoing Symptoms* from ye Blood becoming more infected the Ulcer of ye Lungs more spreading & all ye Humors more depraved, whence greater Debility, Loss of Appetite, Fever, & Decay of ye Body, Thirst, Difficulty of Breathing &c –

Facies Hypocratica – When the Fever has ~~and~~ melted down all ye Fat contained in ye cellular Membrane of the muscular Parts seem to have vanished by ye Violence of the Disease, then the whole Body appears to be only a covered Sceleton

"Adducitque cutem macies, & in Aëra Succus
"Corporis omnis abit; vox tantum atque ossa supersunt"
Ovid: Metamorph: Lib: 3.

The Nose appears thin & sharp, the Eyes hollow & glistening the Cheek Bones high & prominent above & ye Skin appears as if sewed below to ye upper Part of ye Gums, making a great hallow under ye Os Jugale the Countenance is of a Pale cast or of a cadaverous Hue – This is by Hypocrates esteemed a fatal Sign & from his accurate Description has ever since been called from his Name The Hypocratic Face –

This is the Discription of Hypocrates – "Nasus acutus, Oculi "concavi, Tempora collapsa, Aures frigidæ & contractæ Lobi Aurium inversi, & Cutis circa Frontem dura, intenta arida colorque totius faciei pallidus aut & niger & plumbeus!"

A great Anxiety about the Præcordia especially in ye Evening.

The difficult Passage of ye Blood thro the extreme Branches of the capillary Vessels of ye Lungs gives a great Resistance to ye free Egress of ye Blood from ye Heart; but as long as Life remains there is a Necessity that ye Circulation of ye Blood thro' ye Heart should be kept up. As soon then as an Obstruction is threatened, provident Nature has endowed ye Heart with ye utmost Sensibility whereby it is roused by acting with greater Force to attempt overcoming ye Obstacle to ye Expulsion of ye Blood from ye right Ventricle into ye Lungs & an Anxiety is produced, as if Life was endangered & attacked in its very Capital. When ye Patient turns about & continually changes his Situation & expands his Breast restless & uneasy till ye difficult Passage of ye Blood is rendered easier: & this happens more especially in ye Evening, when there is commonly an Exacerbation of the Fever even in Health from ye new & crude Chyle passing thro' ye Lungs —

Night Sweats especially about the Neck and Breast— From ye Abſceſs of ye Lungs ye Quantity of Pus is daily increased & mixed with ye Blood; but one Part of ye Office of ye Lungs is to procure a due Mixture of all ye Fluids contained in it and to aſsimulate them into good Blood. And we have already shewn how their Action must be impaired & weakened from Suppuration, hence ye Crasis of ye Blood will be leſs firm & ye mixture of its Parts imperfect. By the heat of ye Bed, ye Skin is relaxed & ye Pores opened, & ye thinner Part of ye Blood is expreſsed thro' them by ye continual Fever increased at this Time & quicker Motion of ye Fluids in Form of Sweat.

The Cacochymy of ye Humors wherein there is an incompleat Mixture & Aſsimulation increases ye Tendency to Sweat, this must be heightened from ye Pus in ye Lungs attenuated by the Fever & absorbed by ye lymphatic Veins, so as to increase ye putrid Diſsolution of ye constituent Parts of ye Blood. On account of ye Obstruction in ye Lungs from ye Abſceſs there, the Blood paſses thro ye pulmonary Artery with Difficulty this hinders ye Return of ye Blood from ye superior Parts ye Neck and Breast & puts ye Veſsels of these Parts on ye Stretch, whereby the Sweat is squeezed out here more copiously, being seen to collect in great Drops. By this Fever ye Pus is prepared for a critical Discharge & eliminated thro ye Pores of ye Body & the Fever leſsens when this is discharged, & ye periodical nightly Exacerbation returns from a fresh Collection of Matter & a new Obstruction from ye Renewal of ye former Causes.

Red Pustules— Whilst ye Blood is diſsolved & ye thinner Part expreſsed thro' ye Pores by Sweat, ye more acrid & thicker Part may stick in ye Veſsels of ye Skin & occasion red Spots or by producing Obstructions about ye Cuticle raise it up into Pustules.

Watery Pustules— These denote such a Languor in the Circulation that ye Lymph is not reabsorbed, or such an acrimony as to destroy ye Connection between ye Cutis & Cuticula whereby ye later is raised into Veſicles & filled with the transuding thinner Part of ye Blood.

Swelling of ye Hands & Feet — The Powers of Circulation are very languid in ye Extremities, whence ye Return of Blood in ye Beginning of ye Veins is but slow, so that ye Absorption by ye Lymphatics must be hindered & an Accumulation of Lymph in consequence produce a Tumor of these Parts. or from ye languid Circulation of the Blood in those Parts it is disposed to separate into its constituent Parts & ye thinner & more fluid transudes thro ye Veſsels into ye cellular Membane & occasions a Tumor —

Apthæ - When ye nocturnal Sweats begin to cease & ye Spitting to be leſsened from a debility then ye putrid Matter in ye Blood (by an Attempt of Nature to throw it off) deprived of ye thinner Part, is deposited on the internal Superficies of ye primæ Viæ, where ye thicker Part from Heat & Diſsipation takes on ye Appearance of a dry Scab or Crust.

A Hoarse Voice From the great Dryneſs of ye Fauces & Trachea Arteria parched up by ye Heat of the Fever, ye Air in speaking does not paſs thro a moist Pipe as in healthy People; but thro a stiff rigid Canal & gives a hollow hoarse Sound as if it was sent thro an inflexible metallic Tube —

Rubor Genarum, A Flushing in ye Hands & Feet- From ye Difficult Paſsage of ye Blood thro' ye Lungs already explained, ye Return of Blood thro' ye superior Parts is much impeded, whence ye Redneſs in ye Cheeks where ye Skin is very thin & discovers ye Blood Veſsels thro' them. From ye difficult Paſsage also of ye Blood thro' those extreme Parts at ye greatest Distance from the first Cause of Motion where there may be a Spasm of the Vessels, & a greater Friction or quicker Oscillation to propell ye Globules into ye Beginning of ye Veins, may arise that sense of Heat & quick Flushing of Blood, as it is alternately obstructed & suffered to pass thro'

A Falling out of the Hair may be ye Consequence of ye weak Circulation & Acrimony of all ye Juices so that a Power is wanting to determine them to ye Surface of ye Body & ye Properties wch are necessary to nourish them.

Diarrhœa colliquativa, fœtid Stools & a Suppression of ye Sputum – The Putrefaction & Acrimony of ye Humors increasing, obstruct & ulcerate ye Cœliac & mesenteric Vessels and from stimulating these Parts determine ye Course of ye circulating Humors to them wch checks ye Sputum, & from ye great Putrescency they smell highly fœtid. And if towards this last Stage before ye Spitting be stopped, it be thrown on a live Coal it sends forth an abominable Odor: a high Proof of ye great Degree of Putrefaction wch is now come on. Herein we frequently see verified the 13th Aphorism of ye 5th Section of Hypocrates "A tabe detento alvi profluvium superveniens lethale" & § VII. Aph: 16. "A Puris sputo, Tabes, & Fluxus, postquam vero sputum retinetur, moriuntur." He proposes three Signs as more remarkably fatal, the first is the Falling of ye Hair, ye second ye Fœtor & bad smell of ye Sputum when thrown into ye Fire & ye last is ye supervening Diarrhea or Flux when the Expectoration is stopped & does not return again.

In order to make ye Enumeration of Symptoms more complete I shall here present you with ye most elegant Description of a Phthisical Person by Areteus

Aretæus by Wigan Lib: Imus Cap: VIII. De Phthisi Pag: 48

Vox rauca est: cervix paululum tortuosa, gracilis huc & illuc ægre versata, quasi intenta; digiti tenues, sed crassi sunt articuli, in iisque ossa tantum videntur superesse, quia Caro jam extabuit: digitorum ungues adunci; venter rugosus atq; latus, quia præ macie, non jam ut antè, carnis quasi fasciâ continetur, neque rotunditatem servat suam; quâ de Causa Ungues etiam incurvantur: siquide caro ista, quæ in eorum summitatibus abundabat, usque, ut fulamentum quoddam, suberat, jam quasi durum quid & solidum efficitur, unde et ipsorum unguium dolor est. Nasus acutus atque tenuis: malæ cum Rubore extant; oculi concavi, lucidi, micantes: vultus tumidus, pallidusque aut lividus: tenuis malarum pars dentibus ita adhærescit, ut ridentium similes sint; omnino cadeverosi sunt. In eundem modum cætera sese habent; ubique tenues, & carnis expertes: brachiorum nusquam apparent Musculi: mammarum ne vestigium quidem superest, & papillæ tantum in conspectum sese offerunt; costas non modò conspicuè dinumerare licet, verum etiam ubi desinunt, intueri facile est: neque enim harum cum spinæ vertebris articulationes occluduntur, & earundem in os pectoris insertiones patent; costarum interstitia cava sunt in Rhombi figuram, secundum ossium circumferentiam; præcordia vacua, sursum reducta: abdomen cum ilibus, spinæ cohærescit: articulos tibiæ, coxæque, & brachia conspicuos & prominentes habent, & carne destituuntur: spina etiam, quæ in cavo erat antea, supra vertebras extat musculis jam utrinque consumptis: totæ

quoque scapulæ apparent, avis instar alarum, extensæ. His alvus cita superveniens mortifera est, sin ad sanitatem spectent, signa perniciosis contraria accedunt—

(Aretæus loco citato)

Dura cutis per quam spectari viscera poſsent,
Oſsa sub incurvis extabant arida lumbis:
Ventris erat pro ventre locus; pendere putares
Pectus & a spinæ tantummodo crate teneri.

Heurnius — historia 1^{ma} Observ—

Prognosis — If y^e Disease is yet of no long Continuance & if it proceeds from a Hæmoptöe owing to external Injury only & that not very violent if there is little Fever & a free Expectoration, & no bad Habit of Body preceeded, & if what is discharged be not very offensive, & all the Symptoms moderate there may be hopes of an effectual & perfect Cure; tho not without great Difficulty.

But if y^e Disease be in an advanced State or owing to an hæreditary Disposition & y^e Symptoms violent; if there Marks of high Putrefaction in y^e Humors, constant hectic Fever, Night Sweats, Facies Hypocratica, Suppreſsion of y^e Sputum a colliquative Diarrhea & great Extenuation of y^e Body with loſs of Appetite, Pustules, or Tumors of y^e Hands & Feet & y^e like the Disease will surely sooner or later prove fatal, according to y^e Number & Urgency of these Symptoms.

From the whole of what has been said we may observe that y^e first Stage, or an incipient pulmonary ~~Pth~~ Phthisis admits of a Treatment preventitive of a confirmed Consumption: that the second or Phthisis just formed if the

Circumstances are favorable allows of a radical Cure: but the third or more advanced Stage can only be palliated & not entirely cured.

The Cure of the First Stage we have already given at full length. The Treatment of the two last come well enough together, since they only differ in Degree & the one runs insensibly into the other —

Methodus medendi —

The curative general Indications are

Ist If there be a Vomica to procure a Rupture of it & a free Discharge of ye Matter by ye Trachea.

II. When there is an open Ulcer to endeavor ye Cure of this by removing & correcting ye Cause — by procuring a free Discharge of ye Pus — by counteracting & correcting the purulent State of the Blood & Humors — by consolidating the Wound &c —

III. To restore the Strength by nourishing Diet Air and Exercise.

Ist Ther. of a Vomica — When we are certified of ye Existence of a Vomica from its Signs as an Inflammation continued for a length of Time without any Marks of Resolution, & succeeding to this slight Shiverings without any other manifest Cause; a Remission of ye Pain, but a Difficulty of Breathing remains with Thirst, Fever increasing in the Evening & a weak soft Pulse: after this a troublesome dry Cough especially after Motion & Meals, & all ye other Signs of the Formation of Pus, without seeing any in the Matter coughed up, & the Patient can only lye easily on one Side we must attempt to reduce it to an open Ulcer 1st By softening it – 2d. By a Concussion of ye Lungs or an increased Motion —

To soften it nothing will answer better than making the Patient breathe in the Steams of warm Water with Vinegar Decoctions of emollient Herbs, & emollient Gargarisms or Lynctus & or the like put on the Tongue & suffered to glide down gently into the Trachea. This being done such Motion as ye Patient can conveniently Use should be ordered. Riding either in a Chaise or on Horse Back or brisk Walking will quicken the Blood, hurry it thro' the Lungs, occasion a fuller Expansion, & put the Membrane investing the Vomica upon the Stretch, till it thins gradually & at length bursts. This may if required, be promoted by raising a Cough or gentle Emetic, which will often answer when the other fails from the great Concussion it brings on the Lungs by which a Discharge is procured for the Pus into the Trachea —

In the II. Indication or to cure the open Ulcer we endeavor to remove the Cause in the Manner alread mentioned in the first Part in ye Cure of the Catarrh Spitting of Blood &c —

We procure a free Discharge of Pus by Decoctions of emollient Herbs & pectoral Lynctus of Oil & Honey which soften the Lungs, if not by being taken into the Blood and conveyed thither in the Road of the Circulation; yet by the Sensation produced on the Epiglottis & communicated to the Lungs by consent or softening the Trachea.

Detergent & gentle Stimulating Medicines also promote Expectoration, as Oxymel & Vinegar of Squills, Honey the warm Gums, as Myrrh, Ammoniac, Olibanum the mucilagenous ones as Gum arabic & Tragacanth; also vegetable expreſsed Oils as Ol: Lini, Amygd: Dulc:; add ye animal Oil Sperma Cæti with Infusions of Marsh Mallows Root & Leaves & those of Althea &c—

Errhines are also good as by the Sneezing & Coughing they excite, they squeeze out the Pus into the Trachea & the Emollients abovenamed lubricate & render their Discharge easier.

The Balsams of Terebinth, Macca & Tolu from their aperient Virtues are often used advantageously; but none more commonly or to better Purpose than ye Balsam of Sulphur. They are powerful in resisting Putrefaction but are heating & therefore to be used with Caution.

These also coincide by their healing Properties consolidating the Wound, & may be with that safe Astringent the Conserve of Roses, with Tuſsilago &c

Gentle Motion aſsists also, as is very evident in Discharging the Matter.

Unleſs we can correct the purulent State of ye Blood all our Labor will prove in vain, with this View,

Sudorifics are employed as well as Diuretics occasionally, that by the Emunctories of the Kidneys & Skin what is offensive in the Constitution may be carried out of the Body, & the Blood & Humors freed of some Part of their Acrimony

The soft oleaginous Medicines & the Mucilage of Gum arabic as it were sheathe ye Veſsels from the Acrid Stimulus, or procure a Sweetneſs to ye Blood & Humors.

Antisceptic Medicines such as have a Power of correcting Putrefaction are particularly indicated. Under this Head we reckon Decoctions of the aromatic Plants, as

Sage, Betony, Rosemary, Elicampane & Liquorice Root, as well as Sarsafraſs & Sarsaparilla. Acescent Food is good for this purpose with a little Wine, also Acids. Elixer Vitriol has been often highly commended for nocturnal Sweats. In ye confluent Small Pox there is a very bad diſsolution of the Humors in Sydenham observed Spirit of Vitriol mixed with the Drink to be of excellent Use. But appears by chymical Experiments that foſsile Acids inspiſsate most Humors of ye Body, theref vegetable Acids are preferable to correct Putrefaction. Absorbents & fatty Earths, as Testaceous Powders, Bol: Armen: & ye like are sometimes employed. These can only be used on particular occasions when Acids predominate in ye primæ Viæ from Indigestion as may sometimes be ye Case altho a putrefactive State takes Place in ye Humors & Blood from Absorption of Pus &c; But for the most Part these absorbents are laid aside.

Blisters also, Setons or Iſsues near the Part have been of excellent Service, especially where any Pain yet remains or small Degree of Inflammation yet accompanies by drawing off a Quantity of serous or noxious Humors that would otherwise fall on the tender Lungs but this does best in the first Stage.

The Consolidation of the Wound or Ulcer depends upon the perfect Suppuration of all the diseased Part and upon its being thoroughly cleansed by the various Remedies prescribed for that Purpose & upon the purulent State of the Blood being corrected: for all these Things being obtained & the Fever abated, the Ulcer will gradually heal of itself but besides what has been mentioned for this Purpose already Dr. Boerhave recommends the Use of Paregorics +

Aph: 1216.

I cannot omit here the high Commendations which are given to the Extract of Saffron for this End by Jacob: Bontius in his Treatise de Medicina Indorum where he tells us "Nihil "aeque prodest, ac toties commemoratum Extractum Croci "quod non tantum sanguinis ſputum sistit sed & tuſsim "sedat; pus incraſsando habilius ad expectorationem reddit, "quinetiam pulmones exulceratos consolidat, ac ad cicatri:"cem producit, eoque solo remedio plurimos jam desperatos "sanavi — Great Promises truly, I wish the succeſs could be found answerable.

The last Indication is to restore ye former Strength —

If Nothing further remains, this will be done by a light nourishing Diet, such as Vegetables, Broths of young ~~An~~ Animals; but preferable to these by a Milk Diet if Circumstances of the Patient will admit of it as an Idiosyncracy &c. Aſses Milk is esteemed best. Milk has the Advantage of all other nutritive Substances of being easily aſsimulated into an animal Nature & not requiring much Elaboration from the Lungs. Panada with a little Wine will be useful, boiled Biscuit or Rice Milk &c —

Fresh pure Air & a wholesome moderate Climate. The Advantages of these are so obvious & we have already spoke so much of them in the first Part, as renders a fuller Recommendation unneceſsary. Since Exceſs of Heat & Cold ought ~~to~~ carefully to be avoided as every Error in ye Non Naturals a pure Air may well be called, as Barry expreſses it, a *Tonic Pectoral*.

Gentle Exercise as the Strength will allow must be greatly conducive to a confirmed State of Health beginning with the more moderate ones of Gestation & proceeding gradually afterwards to those which require a greater Exertion of the Muſcles; but not so as to fatigue

Palliative Cure

When a radical Cure cannot even be hoped for, all we can do is to endeavor to moderate the Symptoms. This is most advantageouſly accomplished with the Elix: Paregoric & other Medicines of like Nature aſsisted with a strict & regular Regimen whether of Meats, Drinks, Air or Exercise &c used as Circumstances will allow. I shall now conclude this Diſsertation with the two last Aphorisms of Boerhave on a Phthisis pulmonalis §.1212. §.1213.

"Curatio vero hujus morbi palliativa maxime spectat
"Tuſsim, Anxietates, Alvi fluorem. Quibus occurritur
"Diæta (ex Ptisanis, Jusculis, Lacticiniis) Opiatis caute
"adhibitis, liquidis callidis".

Phthisis Pulmonalis.

Is that Species of a Consumption wch has its Seat particularly in ye Lungs & begins by some morbid Affection thereof whether in whole or Part thereby inducing a Decay or Waste of ye whole System—

We are so wonderfully made that there is a mutual dependence between every Part of ye human Frame. the Hand cannot say to ye Eye I have not Need of thee, nor ye Feet to ye Head I have not need of thee &c-& vice versa — However some have a greater Dependence than others & some more neceſsary for our Existence in Life among wch are ye Lungs one of ye vital Viscera. I need not here enter into a Discription of them as they must be particularly known to every Anatomist to every Physician who is worthy of ye Name.

As this Disease is a Species of Consumption it therefore becomes neceſsary to observe that a Consumption implies all Disorders wch bring on any Decay or Waste of ye Constitution & may be considered as particular or universal i:e: having its primary Seat in one particular Part of ye System or that wch affects ye whole. Under ye first of these is comprehended ye pulmonary Phthisis wch has its Rise from some Disorder in ye Lungs whether primarily or by Translation of a Disease from some other Part affected or by their critical Terminations. Therefore a φθισις pulmonalis may be considered either as Idiopathic or Sympathetic.

The first is either hereditary or natural ye latter merely accidental. An hereditary Phthisis is originally in ye Embryo communicated from ye Parents & interwoven with its first Prin-
ciples

Principles of Life altho' it may not appear instantly after Birth. A natural may proceed from a particular Formation of some of all the Parts of the Body & is indicated by a long narrow Face, a sallow Countenance or a bright ruddy Complexion, blue Eyes, a long small Neck, a Straitneſs of the Thorax anteriorly or laterally or a particular ill Formation of some of the principal Viſcera. Accidental may take its arise from almost any disorder incident to Mankind.

Procatartic Signs are a Dry Cough which may continue for some some Months, a Vomiting or Diſposition to vomit after eating attended with a Nausea & at times Chills or Rigors succeeded by feverish Heats &c &c ——

A Cough & pining away of the Body (with a hectic Fever) are ye Pathognomonic & never failing Signs of this Diseaſe. However as pathognomonics do not consist totally in individual Symptoms; but in a Syndrome or Concursus Symptomatum I shall be a little more particular to the above then may be added a small tense thready & serpentine Pulse, nocturnal Sweats, crude turbid Urine, wch are attended with a purulent Consumption of the whole Lungs or some one or more of the Lobes. this is evidenced by a sudden Bursting of a Vomica, wch, from ye Quantity of the Pus proves sometimes suffocating or is evacuated into ye Trachea & coughed up daily in large Quantities, wch is thick fœtid, white, red, Yellow, livid or streaked & when put into Water will sink or into ye Fire it smells like burnt Flesh. If this Matter is permitted to be absorbed & carried into the Blood the Respiration becomes uneasy & very Difficult & the Fluids are thereby converted into a purulent State. The Chylopoietic & Aimapoietic Organs become depraved & unfit for their Functions

wherefore

wherefore the usual Methods of Nourishment are destroyed & the Solids being deprived of their neceſsary & indispensable Supplies continually waste away the Feet & Hands swell & lastly this Disease is attended with a Diarrhea of purulent cadaverous Stools.

Prognosis. Here is Danger on every Hand & Nature reduced to a Dilemma however there is a favorable appearance when the purulent Matter is expectorated & not carried into ye Blood so as to vitiate its nutritive Particles or destroy ye due Tone of ye chylopoietic Viſcera so neceſsary in the Preparation of Nutriment. If the Progreſs of this Disease stops here & the whole Lungs are not destroyed & the Symptoms evanish with ye purulent Discharge regularly & gradually before the System is too much enervated by such an unaccustomed Evacuation we may with some Degree of Certainty predict a favorable Event. But on the contrary from a Rupture of the Vomica ye Patient may be suffocated & instantly die or the whole Maſs of Fluids by an Absorption of ye Purulent Matter may be so vitiated & the Solids thereby detonated as to induce a lingring & certain Death: more particularly when the Ancles or Wrists — Hands or Feet begin to swell they are dangerous charecteristics such as token a Diſsolution of ye Fluids & an incipient Enervation wch will be attended with a Universal Weakneſs & Inaction of the whole System so that the Patient will sink by degrees as Nature cannot receive neceſsary Supplies - the Diarrhea of purulent cadaverous Stools shews a vitiated & putrid State of the Fluids & an Unfitneſs of ye Viſcera to prepare ye Aliment for Nutrition this also is a mean of continual & speedy Wastings of the Solids & hastens Death. Death is an End to all

transitory

transitory Ills & Oppreſsions: & prepared for his Meſsage he is a wellcome Meſsenger who invites from Pains to inexpreſsable Pleasures wch shall not be imbittered with a Prospect of any Interruption by Disease or Troubles or Termination by ye cold Hand of Death. The Soul shall live beyond ye Comprehension of Thot either of Angels or Men stripped of this ragged Coat of Clay wch affords so many Avenues for Disease & Death.

Moreover we are in our Prognosis of this Disease to have a particular Regard to ye Age, Habit, & Constitution of the Patient, Cause of the Disease & also to advert to ye particular Constitutions of the Air—.

In further considering this Disorder we shall for the sake of Method divid it into three Stages

1. Incipient
2. Quite formed &
3. a comfirmed & advanced State.

1. An Incipient Phthisis is to be apprehended from
    1. An Hæmoptöe or spitting of Blood
    2. a Catarrh, or dry Cough,
    3. Tubercles, which are attended with a dry Cough.

1. An Hæmoptoe is an Evacuation of Blood from ye Lungs carried thither by ye pulmonary Veſsels & emitted at the Mouth. This Hæmoptöe or Blood spitting is often followed with Cicatrices in the Lungs, hence a more difficult Circulation of the Blood in them, & by being often repeated with a Concomitant Inflammation, the Lungs become ulcerated.

A Suppreſsion of any natural or neceſsary artificial Evacuation may produce a disordered State of the Lungs leading on to a Consumption, by the Plethora it occasions.

When

When there are evident Marks of Inflammation or a Plethora, a costive Habit of Body tends to increase the Diseases. Laxatives p: r: n: are neceſsary to remove this Complaint.

In Tubercles of the Lungs wch are the constant Cauſe of the Cough from the continual Irritation of the Lungs, V.S. is also ordered for the Plethora if such a State is present, or to moderate any Inflammation wch is evident.

But the Cure depends much leſs in this Caſe upon ye Depletion of ye Veſsels, if no Plethora or great Inflammation accompanies ye Tubercles—. Large Evacuations only weaken ye Body and hurry on the Diſease

Sedatives are best & Elixer Asthmatic of Service to quiet the Irritation & thereby allay ye Cough—

Blisters are useful where Pain indicates a Spasm or where it is tho't neceſsary to produce a Revulsion of noxious, superabundant Humors into these artificial Drains which convey them out of the Body these should be applied as near ye Part as is most expedient. Blisters are good in particular Caſes to break the Fever.

Demulcents are proper in Hæmoptoë if employed discreetly as well as in a Catarrh & Tubercles as Agrimony Maiden-Hair, Mallows &c— Tuſsilago is aſtringent & demulcent—

Food & Diet— On account of the great irritability of the Lungs abstain from all high seasoned Meats & very rich Sauces: Salt & very fat Meats especially Pork & Bacon are altogether improper & by no Means allowable as they fill the Blood with groſs Humors & are leſs perspirable than the light, white Meats or those of easy Digestion as young Fowls, Veal, Mutton & all such like.

We are also to remember that whatever checks ye natural Evacuation of the perspirable Matter will affect the Lungs with

with an unusual Load & Oppreſsion & increase the Cough. in this Caſe the Fluids are increaſed & thrown the most weak & Part w^ch is the diseased Lungs. Whatever is difficult of Digestion will have the same Effect in Degree.

Milk Diet is altogether proper as well as Bread & Puddings &c the Grain being well ground & the Texture of it quite broken by a thorough Fermentation & the Manner of cooking &c —

Sallads are particularly good especially Creſses, Dandelion & such Vegetables as are usually reckoned Antiscorbutic & purifiers of the Blood.

Drinks such as Whey, weak Punch, Milk Punch are very beneficial as well as diluent & pectoral Drinks as Barley Water, pectoral Decoction & the like —

Exercise. When there appears to be a Relaxation of the Veſsels moderate Exercise braces up the Body & ~~streng~~ strengthens ~~up the Body~~ & restores the Tone of the Veſsels; but where an Hæmoptöe is not the original Complaint, but proceeds from a Tubercle, or where there is yet an Inflammation or Irritation kept up it must be pernicious. In tuberculous Caſes it should be of the gentlest Kind to begin with till the Patient is better such as sailing Riding in a Machine with Springs & with a free Acceſs of wholesome pure & temperate Air w^ch moderately expanding the Lungs renders the Circulation thro it eaſier. But violent Exercise must be hurtful, since all strong muscular Motion urges the venal Blood more briskly to the right Cavity of the Heart & increases its Impetus thro the Lungs & by circulating too rapidly thro y^e affected

Lungs

Lungs must injure the obstructed or straitned Veſsels

Strong Opiates in Hæmoptöe require as much Caution as Exercise does; but gentle paregorics wch allay or quiet ye hurried Motion of ye Blood & take off or leſsen Irritation must be serviceable, as Elix: Asthmatic. Besides the Elix: Asthmat: leſsens the troublesome Cough wch proves a constant Source of Irritation & suffer the acrid Phlegm & Humors to remain some Hours longer in the Lungs with Heat & Moisture it becomes leſs tough & viscid i e: better concocted & more easily expectorated.

II Cause – A Catarrh is a copious Discharge of Mucus Humor expelled from the Bronchia & Larynx. The Cauſes of this Defluxion has been considered in a præceding-Diſsertation & the Indications of Cure I shall here only make a few Observations.

Where there is a Suspicion or Evidence of the Blood being tainted by a phthisical Acrimony the Antiscorbu:tic Plants are of great Service to correct that Acrimony as Dandelion (Cæparia, Scillæ, Alliacea &c) & conducting it out of the Body by proper Emunctories

Pectoral Diaphoretics as they are called are of great Service by a Derivation to the Skin & Kidneys, & also by promoting a Secretion of the Bronchial Mucus or Mucus of ye Lungs wch sheathe the Veſsels from Acrimony & by a Sort of Condiment or Antiseptic Quality, preserve the Blood from Putrefaction, such are ye Gum: Ammoniac Benzoin &c – & other Ingredients in the Elix: Asthmatic

Of

Of Exercise. Riding is one of the most effectual as the Motion is so gentle & equable, where Riding can be allowed; But must by all means be gentle in tuberculous or inflammatory Cases. Riding in Chaises & such like Machines is of Service where riding on Horse Back cannot be allowed. Never upon the most urgent Occasion let your Patient ride in a moist Air, under a cloudy Sky.

Cold Air joined with Riding is known to restore many pulmonic Patients to Health by the Spring it gives to the Blood, & Elasticity to the Vessels, by bracing & invigorating the whole Body, creating Appetite & removing those creeping Fevers that too often undermine the Constitution left to themselves.

Sea Breezes are remarkably salutary. By Sailing & long Journeys on Horse Back many obstinate Coughs have been cured, which had resisted all the ordinary Means of Cure; But in tuberculous Case riding on Horseback (as has been remarked) must be allowed very cautiously.

Without a due Proportion of Exercise suitable to ye Strength & Circumstances of the Patient we can scarcely hope that Medicine will be of any Service: for it is not by the Force of the Circulation carried thro' the capillary Vessels & brought to act upon ye very Seat of the Disease it is prescribing to no Purpose

I would conclude this Head by mentioning severall Medicines which are of Service to correct the Acrimony of Humors in pulmonary Cases. For this Purpose oily & mucilaginous Medicines are generally used of such kind are various Linctus's & Syrups, Sperma Ceti &c But these in large Quantities often hurt the Appetite, on wch Account

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the more bland Mucilages are best as Decoctions of Althea, the Mucilaginous Gums of Arabic & Tragacanth, Cherry Gums and the like.

III. But of Tubercles more particularly or third Cause of pulmonary Phthisis —

This is the most common Cause as almost universally it has been found on examining the Lungs of phthisical or consumptive Persons post Mortem that Tubercles or an Obstruction & Induration of the Glands of the Lungs appeared thro' the whole Substance, either like hard Knots or ulcerated (we speak not here of such whose Lungs have been consumed by a very extensive Suppuration, but thoſe seemingly slighter Caſes).

Profeſsor Sylvius, who was much conversant in inspecting into the Causes of Consumptions, declares he always found glandular Tubercles in the Lungs of various Sizes, some larger & some smaller in wch a various Kind of Pus was contained wch tainted the Blood & produced those continual Fevers wch were kindled up in ye Constitution. He rationally concludes that these gradually suppurate (if the Obstruction can't be removed) & being enclosed in a Sort of Membrane or thickening round the affected Part by Inflammation form the Vomica of the Lungs from wch, when open, a Consumption arises.

These conglobate Glands are not always visible in a sound State unleſs by a curious Inſpection, or the Help of Glaſses; but when an acrimonious Lymph fills them up they then enlarge to a prodigious Size & form Obstructions

in

in the Lungs, in the Mysentery, & often in the conglobate Glands of the Neck & other Parts tho' the conglomerate Glands of ye Part in the neighbourhood seem free from Injury.

Some of the Signs of Tubercles are a dry Cough and very frequent with Difficulty of Breathing; increased upon the least Motion.

These Signs become more certain if there are any external Marks, as Obstructions of other Glands in the Neck; but such do not always accompany, being a Mark of a very deep rooted or advanced State of a Consumption.

Swelling in the Feet, Ancles Legs, Hands Wrists &c afford another Mark joined with Disorders of the Lungs, as they signify Obstruction in the lymphatic Veſsels or Glands.

By these & the like Circumstance an attentive and skillful Observer can tell the Existence of Tubercles before the purulent State that follows them is discovered either in the Matter of the Spittle or the purulent Sediment in the Urine.

The most ingenious Dr. Cullen observes that the Change of a Tubercle to a purulent State is commonly accompanied with the Disappearance of the red Veſsels on the Tunica adnata of the Eye; which are more or leſs evident & more or leſs numerous in all healthy Persons.

Another more sure Mark is, if the Tongue had a white fuzzy Appearance before & is now become of a a clear Red —

Cure

Cure

If we are certain of Tubercles being in the Lungs & that unconnected with Scrophula we are to aim at keeping them from a further Increase or from running on to Suppuration if poſsible, or if there appears any Proſpect of curing ~~them~~ it (if I may be allowed to call it so) by ye first Intention by which I mean Resolution of the Obstruction.

It is indeed to be lamented that this can but seldom take Place, since these Tubercles are so much of the Nature of Schirri in the conglomerate Glands, & so much out of the Laws of the Circulation, as Physicians term Disorders in the minutest Parts of the vascular System.

So that Medicines wch will generally act most on the Parts they first touch or paſs through, & before they arrive at the small capillary Veſsels are diffused thro' the whole System. How then shall we then collect their Force, how shall we direct that Force to act only upon the diſeased Part & not fill the Blood with Medicines which by their strong Action may break down other more tender Parts of ye Body which are more sensible of an Action upon them than ye indurated or schirrous Parts especially when the Tubercles have exiſted for some Time? Here herculean Medicines will sooner shock & destroy the Constitution than touch the Disorder.

Yet let us not despair, softly & easy goes far, festina lente is a Motto truly applicable here. No Time is to be lost in the Use of the most bland, safe & efficacious Medicines

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& they must be resolutely persisted in. A strong Enemy deeply entrenched is in Poſseſsion of the Citadel: a violent aſsault will sooner demolish the City, than compel such an Enemy to surrender. Here we want the City entire which is easier gained by a steady, resolute & artful Conduct, than by placing all Hopes on a Rash tho' powerful Attack.

There might be hopes of Succeſs & ought to be attempted, could we know when the Disorder of Glands was incipient & the Matter Fluxile by an antiphlogistic Treatment V.S., gentle Emetics, neutral Mixtures w^{ch} have a resolvent Quality, slight Preparations of Mercury made to act as an Alterative by the Rules of Art & gentle Exerciſe proper Air & Diet which render the Medicines more efficacious by quickening the Powers of Circulation a little and bringing the Medicines to act on the Glands.

De Urinis

Urine is a serous & saline Fluid secreted by ye Kidneys & conveyd to it's Follicule ye Bladder by ye Ureters, & occasionally emitted from thence, thro' ye Urethra, wch is of a deep Straw or Citron: Color. But it's Changes in Color are various, as well in Health from ye Way of Living, Age, Constitution, Sex, Climate or Season of ye Year. wch will hereafter be noticed.

There are many Diseases to wch ye human Body is obnoxious, whose latent Causes lie ſo concealed in ye secret Meanders of that intricate Machine, that ye most skillfull & sagacious Physician has need of all ye Aſsistance he can procure both from Nature & Art to render them cognizable.

Urine among other Things has in all Ages been— reckoned to conduce not a little to this Purpose, & I think wth great Propriety: for if we consider, that in almost all Diseases, whether of ye Fluids or Solids, ye Maſs of circulating Humors is more or leſs affected, & that ye Urine is immediately secreted from ye Blood ~~by ye Reins~~ by ye Kidneys: it will appear evident, that by a judicious Inspection of this Fluid, we shall be able to form a Judgment wth no small Degree of Certainty concerning ye Nature of ye Disease of our Patient, whose Urine we inspect & it's Event whether, it will terminate in Health or Death.

This is affected by observing ye Difference there is between ye Urine of ye diseased Patient & that of a Person in Health, wch we cannot do with sufficient Propriety, unleſs we know the proper Marks & Characters of this Fluid, both in a sound & morbid State.

Therefore

Therefore, it is neceſsary for us first to consider y^e Marks & Characters of what is called natural or sound Urine, or what is evacuated by a healthy Person. 2^{dly} The different Kinds of preternatural or morbid Urine, & from whence they proceed, & lastly add some brief Observations concerning y^e Diag:nosis & Prognosis of Diseases from Urine.

But it seems very proper to observe here first of all, that Nothing certain can be determined from y^e Inspection of Urine alone; but that we ought to consider & at y^e same Time carefully attend to all y^e other apparent Symptoms in Diseases: for Experience teaches us that y^e Urines of a healthy Person compared together at different Times, or with the Urine of other healthy People, is various according to y^e Age, Sex, Habit, Season of y^e Year, Use of y^e Non-Naturals & of Medicines. thus y^e Urine of Infants is thick white, inodorous & affords a copious Sediment; in young People it is thin of a light Color, & almost mild; but it becomes more acrimonious as Age advances, till in old People it is very acrid & fœtid.

The Urine of People of a choleric & bilious Habit is of a more saturated State & deep Color, more fluid, in leſs Quantity & affording leſs Sediment than that of cold phlegmatic Temperaments: hence y^e Urine of Women, who are of a more lax & delicate Constitution than Men, is more dilute and thinner & affords a more copious Sediment than that of Men: hence likewise y^e Urine of y^e Inhabitants of hot Countries & is thinner & deeper colored than y^e Urine of those of cold Countries & in Summer time Urine is

thinner

thinner & more saturated & acrid than in Winter, nay in ye same Day ye Urine will be different at different Times according as ye Person uses more or leſs Exercise, or remains in a hotter or colder Place. Thus a Plough-Man exercised with hard Labor will void Urine of a deep Color & acrimonious, wch wd import a most malignant & fatal Disease, if voided by weak delicate Vigins accustomed to a sedentary Life. Fasting renders ye Urine of a deep Color. Thus a Person who has lately indulged himself with his favorite Bottle & Glaſs, & has eat diliciously dicharges Urine of a very light Color, & in a dilute State & mild; but will be more saturated & of a higher or deeper Color ye longer he remains without eating or drinking, till in those who die of Hunger it is very deep colored, acrid & extremely fetid.

A Person in Anger discharges Urine of a much deeper Color than when sorrowful & dejected.

Aliment & Medicines make various Changes in Urine. Thus, Boerhave says, if a Person sups upon Asparagus & afterward takes a Bolus of Caſsia with Rhubarb, it will render his Urine Black, & very fetid; so that a skillful Physician, being ignorant of what ye Patient has took, might pronounce, that ye particular Person, who evacuated ye Urine must in a little Time perish by a Gangrene of ye internal Parts, when ye very next Day ye Patient being well might deride ye Physician in Errorem Judicii. Turmeric being inwardly taken tinges ye Urine as in a Jaundice, & Saffron renders it like that of a Person in an ardent Fever: hence we may learn the Absurdity of those, who pretend to tell all Diseases by

by a bare Inspection of Urine, without attending to or know:
:ing any of the present or past Symptoms, even without
seeing ye Patient: hence likewise we see ye Necessity of ob:
:serving attentively, not only all ye other Symptoms, that
appear in ye Disease of our Patient, but also his Age, Ha:
:bit with ye Diet Medicines &c wch he takes.

Having premised these Observations, we will begin
with natural or sound Urine.

Urine is known to be natural, by its Quantity, Qua:
:lity & ye Contents wch are in it.

The Quantity of Urine ought to be something less
than ye Fluids we imbibe. This will appear evident, if we
consider, that these Fluids are secreted by many & different
Glands & excreted at numberless & various Emunctories —
whether cutaneous, pulmonic, salivary, or intestinal.
Then if we consider that a Fluid or aqueous Particles con:
:stitute ye principal Part of our Urine (except some saline
& earthy Particles) secreted by ye Kidneys only, we must
allow, that the other Evacuations must in Proportion to
their Quantity lessen ye discharge of Urine: hence it
follows, that those, who drink largely, should discharge
a great Quantity of Urine, unless ye Fluids imbibed are
carried off by ye other Emunctories of ye Body, & vice versa.
This we are certain by Experience is ye Case.

The Qualities of ye Urine most observable are its
Color, Odor, Taste & Fluidity.

The Color of natural healthy Urine out to be a light
yellowish, Straw or Citron=Hue — Its Odor almost none,
altho' it frequently partakes of that particular to ye Ingre
dients

Ingredients, wch we either eat or drink or absorbed by ~~thos~~ those Vessels distined by ye Author of our Being termed Absorbents, & carried into ye Mass of Blood, & consequently into ye Urine. It's Taste is a little acrid & of ye muriatic saline Kind, & nearly of ye Fluidity of common Water; but rather more tenacious, & thereby adhering to ye Sides of ye Urinal. These are ye Affections proper to healthy or Natural Urine, immediately after it is excreted, or discharged out of ye Bladder. But upon standing sometime, certain Collections are formed in it, wch are called it's Contents. These have received different Names according as they occupy the Bottom, middle Part, or Top, as it stands in any Vessel. That wch falls to ye Bottom is called ye ὑποϛάσις, Hypostasis or Sediment. That, which is suspended in ye middle Part, is called ἐναιωρῆμα, Enæorema or Suspension, & That wch rises to ye Top or Surface is called νεφέλη Nubecula or a cloud like Appearance. of these three particularly —

The Hypostasis or Sediment is ye most frequent, this ought to be whitish, in no great Quantity, in smell not disagreeable & precipitating, as it were, in ye Form of pyramids with incurved Vortices. It also should be thin, light, equal & of ye same Tenacity in every Part.

The Enaorema & Nubecula are of a rarer Consistance & lighter than ye Hypostasis, especially ye Nubecula, wch is ye rarest & lightest. These are much less frequent in healthy Urine, than ye Sediment; but in ye Urine of those, who are diseased, they are often observed & should be

examined

examined accurately: because on them greatly depend ye Indications taken from Urine, as we shall hereafter observe.

Thus much for ye spontaneous Phænomena, which appear in natural & healthy Urine, examined either immediately after it is excreted, or some Space of Time afterward. Neverthleſs, we must not forget to make Allowance in ye Urine for ye Age, Sex, Constitution, Season of ye Year &c. as before enumerated, wch as we there observed make great Alterations in this excrementitious Fluid, tho' ye Person all ye while enjoys a good State of Health.

Urine by a chymical *Enchiresis* is found to be made up of several component Parts or Principles, of wch Phlegm is in much ye greatest Proportion; a Portion of common or muriatic Salt may likewise be obtained from Urine. That human Urine, should participate of this Salt, is not so extraordinary, since Mankind Use great Quantities of it with their Aliments; but that ye Urine of herbivorous Animals should also contain this Salt seems to me not a little surprizing; but we are aſsured it does from ye Authority of ye best modern Chymists.

Urine also contains a peculiar saline Substance, called by Boerhave, ye eſsential Salt of Urine, by others, microcosmic Salt, no where discovered, but in Urine itself, seperable in a chrystalline Form & easily fusible on burning Coals.

Urine distilled by a strong Fire yields not only ye volatile Salt & Spirit & empyreumatic Oil common in ye animal Kingdom; but a peculiar luminous & highly

inflammable

inflammable Substance called Phosphorus Urinæ. For more Particulars relating to these very curious chymical Pro:
:ducts of Urine, I refer you to Macquer's or Neuman's Chymistry.

Since what has been said, it appears, that Urine must be of a certain determined Quantity & Quality to constitute it natural or healthy, it follows, that all Urine cæteris paribus, that recedes from that Quantity or Quality is non-natural or morbid. The aggregate of all the Characters of natural & sound Urine seperately & collec:
:tively considered gives us a perfect Idea of ye same, and furnishes us with a neceſsary Medium of Comparison: so that whenever we inſpect Urine, having a Præſciens or perfect Idea of what constitutes natural & sound Urine, by comparing that wch is before us with ye Idea we have of sound & natural Urine in our Minds, we readily diſcover wherein, they agree or disagree. Now as Urine may recede more or leſs from its natural Standard, either in Quantity alone, in Quantity & Quality, or in some one or more particular Affection, consequently there may be a great Number of distinctions observed in præter:
:natural or morbid Urine, according as it recedes more or from its natural State or differs in more or fewer particulars. The Principal of wch, we shall briefly consider.

1st. With Regard to ye Quantity of Urine. This, as we before observed, ought to be in a certain Proportion to ye Fluids we imbibe, therefore whenever it deviates from that proportion, it is said to be præternatural, either from its being in too small or too large a Quantity.

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In ye first Case it is called a Paucity of Urine & proceeds from an Evacuation of ~~some~~ of ye aqueous Particles into some of ye Cavities of ye Body as happens in hydropic Persons or from an exceſsive Discharge of the Fluid by some other Emunctory, as by Sweat, Saliva, Perſpiration &c.
The second is called a copious or too large a Flow of Urine, & happens in serous Colliquations of ye Body, a Derivation of evacuated Lymph to ye Kidneys, or by ye Use of Diuretics.

2dly With Regard to ye Quality of Urine.

1st Color — As Urine is accounted of a natural Color when it is of a light yellowish, straw or citron: Hue. Ergo all Urine will be preternatural in Color, that is not of this particular Appearance, whether in a greater or leſs Degree.

Urine that is light coloured, lympid or leſs saturated is called aqueous or lympid, of wh there are reckoned three Species, Opake, pellucid & transparent. The opake is either of a white, milky, pallid or stramineous Color, & proceeds from thick Humors imperfectly combined: so as to be turbid, or from a Mixture of Chyle paſsing thro' ye relaxed Veſsels of ye Kidnies, as in a Diabetes, where ye Chyle is not sufficiently concocted; or lastly from a Commixture of Ichor or Sanies from an Ulcer in ye Kidneys or Bladder &c —

Pellucid Urine is clear, but colored, whereas Transparent Urine is not only clear; but nearly ~~Color~~: Colorleſs, whence their Difference. They both proceed from

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a Redundancy of aqueous Particles; but of different Appearances.

Urine more saturated or deeper coloured is called by different Names, according to ye Diversity of Colors, as a Saffron, red, ferruginous, black, green, flameing, purple, vinous, rosaceous, livid, leaden & cineritious: all wch proceed from the various Mixture of different Proportions of ye Constituent Parts of Urine, as saline, earthy, aqueous & oily, by ye different Degrees of Celerity, Heat & Attrition of ye Particles of ye Blood, from wch they are seperated.

2dly Odor. As Urine ought in its natural sound State to be almost without any Smell: hence all Urine, that has any great Degree of Smell is accounted unnatural; but here we except ye particular Odors communicated to Urine by ye Aſsumption of certain Aliments & Medicines. The Smell of Urine may be of ye pleasant or disagreeable Kind & of these there may be various Degrees, that may arise from different Causes.

3dly Taste. Urine wch is very acrid, sapid, bitter or disagreeable may be reckoned morbid, since in its natural State, as we before observed, it should be but slightly acrid & saline. Acrid Urine proceeds from Heat & Attrition, by wch means ye Fat, in ye cellular Membrane, is absorbed by ye Veins, carried into the Maſs of Blood & there by ye Heat of Circulation, rendered acrid, after wch its washed off by ye Kidneys.

4thly Fluidity. Urine may be either too thin or too thick, since in its natural State, besides aqueous Particles

it

it contains a small Portion of ye saline & oily Parts of ye Blood, & a still smaller Quantity of earthy Particles abraded from ye Solids, so that it should naturally be of somewhat greater Consistance than common Well-Water, consequently whenever we see Urine perfectly aqueous or of equal Fluidity with Water, we may justly pronounce it too fluid, & on ye contrary if we see Urine thick, turbid & containing a great Proportion of saline, earthy & oily or fatty Particles, we may with ye like Propriety call it too thick.

3dly With Regard to the Contents of Urine.

We have already observed that ye Sediment of Urine ought to be light, smooth, equable & subsiding in a conic Form; but if it has no Sediment at all, or has one, which deviates much from what has been described, it is called preternatural, of wch there are reckoned several Species, as ye *arenous*, *foliaceous*, *furfuraceous*, *squamous*, *lateritious* & *pilous* or *hairy* Sediment. These all depend on an irregular Commixture of ye several constituent Parts of ye Urine in various Proportions from various Affections of ye Solid or fluid Parts of ye Body.

Nubecula or Enaeorema are rarely observed in sound Urine; but frequently in that of diseased Persons, especially ye *spumy*, *filmy*, *fatty*, *flaky* & *filamentary*. The *spumy* or frothy Urine is owing to an intimate Commixtion of ye saline & oily with ye watry Parts of ye Urine; ye fatty from Colliquations or an oily Viscidity of ye Blood; ye flaky &

filamentary

filamentary are mostly owing to some Disorder in ye Kidneys or Bladder.

Lastly, with Regard to ye Time of examining Urine. As ye Urine is seperated immediately from ye Blood by ye Kidneys & discharged out of ye Bladder by ye Urethra, it is evident, that ye secretory & excretory Organs ought to continue in their natural State, that ye same Quantity of Urine may be continually discharged in a given Time. A certain Velocity & Cohæsion of ye Particles of ye Blood is also neceſsary in Order to constitute Urine of it's proper Quality. Again a Change in any of ye other Secretions will likewise make an Alteration in ye Quality or Quantity of Urine. Lastly it will be more or leſs colored according, as it is excreted sooner or later after eating & drinking. From all wch it appears, that ye best Time for examining Urine is in ye Morning: for by lying all Night at Rest, ye Kidneys remain free, the Motion of ye Blood & consequently all ye Secretions are equable & every Part of our Aliment is perfectly aſsimulated.

It now remains for us to make some Observations chiefly from Hypocrates, Boerhave, & Bellini concerning ye Diagnosis & Prognosis of Diseases from Urine.

The Quantity of Urine increased beyond what is usual denoteth, either an Abundance of watry Drinks aſsumed, a Laxity of ye renal Ducts, a Diminution of the other Secretions, an imperfect Mixture of ye Blood, ~~whe~~ whence it's watery Parts easily recede from ye others, that Diuretics have been taken, or a nervous, hysteric or hypochondriac

hypochondriac Affection. consequently since ye Blood must by this means be deprived of its more fluid Parts, it therefore presages a Thickneſs or Acrimony of ye remaining Part. Hence Thirst, Anxiety, Obstructions, Inflammations & a Tabes will follow: for ye fine exhaling Veſsels, will be impervious by ye thick viscid Humors, wch open on ye Superficies of ye internal Membrane of ye Fauces, Oesophagus & Stomach, hence Thirst from a Dryneſs of these Parts, as they do not receive their natural & wonted supply, hence likewise a Deficiency of Saliva & Succus Gastricus & in Digestion consequently, from wch crude Chyle will be formed, that can scarce be aſsimulated to ye nature of good Blood or fitted for Nutrition, hence also from ye thick viscid Humors being unable to enter ye minima vascula, in wch Nutrition is made Leanneſs & Debility will arise, & from their being too thick & viscid to deposit their nutritive Particles. Again ye Blood, being deprived of its fluid Parts, will stagnate in its languid Circulation thro' ye Vena Portæ, whence ye Return of ye Blood from all ye abdominal Viscera will be impeded & a Distention of ye Veſsels with an Anxiety will be excited &c — Lastly this ~~Hum~~ viscid thick Humor by obstructing & stagnating in ye Veſsels will Cause ~~In~~ Inflammations Gangrenes &c —

The Quantity of Urine being much leſs than usual denoteth either, a small Quantity of Drink taken, or ~~that~~ that it contains a great Quantity of fermented Spirits, an Obstruction or Spasmodic Constriction of ye urinary Ducts whether those of ye smaller or larger Order, or that some other Secretions are augmented.

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a   A Suppression of Urine denoteth an Ischury & its various Causes & præsages future Repletions, Heaviness Stupidity & Apoplexy.

When ye large Vessels are distend beyond their natural or Mean diameters, ye small ones will be compressed & the free Transit of ye Humors thro' ye minute Emunctories impe=:ded & as voluntary Motion appears to depend on ye Motion of ye Humors thro' ye minima Vascula, from a Compression of them will arise Sluggishness, Debility & Unfitness for Motion. The Vessels of ye Brain are most obnoxious to Distention of this Kind: because they are very weak, wch Distention will compress ye nascent Nerves & destroy their Motion, & as not only voluntary Motion; but also ye Senses both external & internal depend on ye Nerves: From their being compressed Torpor, Gravedo, Sleepiness & Dullness of all ye Senses will a=:arise. This Compression may be so great as wholly to de=:stroy ye Action of ye Nerves, till at length an Apoplexy will supervene. But besides these Affections from Repletion others will arise from its Acrimony. For from ye known Nature of Urine it is not difficult to understand, how its Salts, being retained in in ye Blood, by Heat & Motion will be changed from a semifixed, bland & neutral to a volatile acrid & alkaline Nature, while its Oil from a bland State will be=:come rancid & very acrid. Urine thus changed by circulating thro' ye Body will, by its sharp Spiculæ, perpetually abrade Particles from ye Sides of ye Vessels & so induce a Tabes universalis. ~~They~~ Spiculæ will also erode ye Vessels & produce Extravasations

of

of yᵉ Humors, wᶜʰ if it happens in yᵉ Brain yᵉ effused Humor by compreſsing those Parts so eſsential in a due Regulation of yᵉ animal Functions, will produce an Apoplexy, Paraplegia, Hemiplegia either a universal or partial Palsy. The acrid effused Blood also by vellicating yᵉ Nerves may Cause an Epilepsy & by its Stimulus cause Inflammations, Convulsions & Phrenitis in those whose Blood is inclined to an inflammatory Diathesis. These acrid Salts being also retained in yᵉ Veſsels not only irritates yᵉ Solids; but also diſsolves yᵉ Fluids, whence yᵉ more aqueous Parts will ~~tran~~ transude thro' yᵉ Sides of yᵉ Veſsels & thereby produce yᵉ various Species of Dropsies —

Aqueous Lympid Urine in acute Diseases presages a Delirium, Phrenitis, Convulsions, & Death from a Gangrene by yᵉ retained Acrimony.

High colored Urine without any Sediment presages Affections of yᵉ Brain, a difficult Concoction of yᵉ morbific Matter, & that yᵉ Crisis will be very doubtful, the deeper colored yᵉ worse, hence Urine of a Flame Color, & thin without any Sediment, always presages yᵉ greatest Danger.

Deep colored Urine with a lateritious Sediment denoteth, that a violent Emotion & Attrition of yᵉ Humors in yᵉ Body has preceeded, a Preceeding Fit of yᵉ intermitting Fever, & in cold Countries yᵉ Scurvy. It generally presages a Continuance of yᵉ Disease, a Weakneſs, Colliquations, Atrophy, or a Dropsy. A furfuraceous Sediment imports a greater Motion & Attrition in yᵉ Fluids, & affords a much worse Prognosis.

Urine

Urine of a Saffron Color, wch will stain Linnen or Paper of a yellow Hue, denoteth a Jaundice.

Urine, wch demitteth a white, light & constant Sediment pointeth out in a Fever, its speed Solution.

Urine of a green Color denoteth a Translation of atrabiliary Matter, whence follows, Anxieties about the Præcordia, Disturbance in ye Bowels, cholicy Pains & an infinite Number of other Diseases unnecessary to mention.

Urine of a reddish Color in a Pleurisy, wch has a light Sediment, is a certain Mark of a salutary Crisis.

Urine, wch has a fatty, viscid, sandy Nubecula or Skin on it Surface, denoteth an Abundance of earthy, sluggish & saline Parts of ye Blood, whence it præsageth ye Scurvy Gravel or ye like.

Urine, wch has Blood, Matter, Mucous, Concretions, Filaments, Hairs or Sand in it, denoteth Disorders of the Kidneys, Ureters, Bladder, Testicles, seminal Vessels, ~~pro~~ prostate Gland, & Urethra.

That Urine is best, wch has a white, light & equable Sediment thro' ye whole Time of ye Disease, till it comes to a Crisis: for it denoteth Safety & that ye Disease will be of short Duration.

Hippoc: in Prognosticis

Pensylvania Hospital 1766

A Relation of a Polypus being found in the Right Ventricle of the Heart & Pulmonary Artery with a Particular Description thereof & an Attempt to account for ye Formation.—

A certain James Richardson last 7ber was suddenly seized with an Asthma, or Difficulty of Breathing, which daily encreased, he was also some time after taken with a Pleurisy, of which he recovered; but still retained the former Complaint— he became Anasarcous in his lower Extremities to a considerable Degree: the upper not being much affected; but at what Period this made its Appearance, I am incapable to relate: however from a Knowlege of the Origin of Dropsies & only considering the primary Symptoms of this Case, you need not be at a loss to ascertain it to be a consequential Complaint, or symptomatic— On the 23d of April he made Application, & was admitted into the Pensylvania Hospital under the Care of Dr Thomas Bond the then attending Physician, who examined him particular, as to those Symptoms already noted, & what we shall further observe

Upon a further enquiry into his Case he related, that he could not ly on any Side, but the Left & his Back, & in setting up he found the greatest ease, w^{ch} was his Posture Day & Night+ — (Further this other Circum:stance may be worthy our Notice in accounting for the Phænomena: he was given to exceſs in the Use of Spirituous Liquors. Women & Wine the two Bullets to Man's Ruin ——— +again he was observed to evacuate clotted Blood at his Mouth & Nose every Night. This was his Case —

Prognosis — After enquiring into the above particulars D^{r} Bond did not hesitate to declare, that he was certain, there was an Obstruction occaſ:oned by a Polypus either in the Heart or Pulmonary Artery.

On Saturday the 26th inst: he died suddenly. ‡ from the above Prognosis a Desire of Improvement excited ~~us~~ the attending Students to have the Body opened, w^{ch} was accordingly done, & the Appearances were as shall be related.

On laying open the Thorax by removing the Sternum, that which first appeared, was a firm adhæsion of the Lungs to the Pleura at almost every ſible Point of Contact —

—The Pleura & Pericardium were also intimately united, & much encreased in Thickneſs, both being nearly a a Quarter of an Inch ~~Thick~~ their Union was on the left Side from the Base to the Apex of the Heart —The Lungs & Pericardium firmly adhered to each other — & the Lungs & Mediastinum, so that this Duplicature was not distinguishable from any of the internal Membranes of the Thorax, or external Surface of the Lungs — such were the adheſive Connections of the Vital Viſcera — When the Pericardium was opened, we might take Notice of one Thing: the Heart was larger than natural; but otherwise the internal Surface of the Pericardium, & contained Fluid was noways extraordinary — In the left Cavity of the Thorax there was about a Quart of Serum rather bloody extravasated — in the Right there was none — This being the Appearance in *Situ quo*, they were removed from the Thorax, that they might be examined more particularly in order to investigate the more immediate Cause of his Death ——. Then,

First, the Vena Cava was opened into the Right Auricle, as was also this Appendage, where was found a concreted Substance about four Inches long, wch was doubtless the coagulable Lymph formed into this appearance by Obstruction, it was not adhereing to any other Substance, as could be perceived being easily Removed, this was natural — Eager in persuit, the Inquiry was prosecuted by laying open the Right Ventricle, where was found a large Concretion, which nearly filled this Cavity. the Concretion (or Polypus as it justly & without doubt may be called) continued in the Arteria pulmonaria into the Lungs: at the Division of the pulmonary Artery this Polypus also divided, one Branch going into Right ~~Lobe~~ the other into the left Lobe of the Lungs — the left was much the longest, & what was particularly remarkable, was that the Extremities of the Bifurcation were composed of many Filaments, wch being cemented by the glutinous Part of the Blood, the Polypus daily encreased — for further Particulars I refer you to the ~~subsequent~~ Discription.

I would farther observe with Respect of the vital Viscera, that the Lungs were of a livid Hue — the right Lobe more so than the left — On a Dissection the Right was full of black Blood — the left had an Addition of whitish Matter, wch occasioned it to be paler than the other —.

Discription of the Polypus } The Polypus being extracted, its Figure is similar to the Cavities it filled —

1. The Right Ventricle — The Polypus filled this Cavity nearly (as already mentioned) in this Cavity it was about five Inches long viz. from the Apex of the Heart to the Beginning of the Pulmonary Artery, broader in the Middle of this Portion than at either Extremity, being about an Inch & an half & gradually decreasing — Plane on the Side next the Septum Cordis, & convex externally about half an Inch Thick in the Middle & gradually decreasing on the external Side, either toward the Apex Cordis or pulmonary Artery — From this Portion or Body of the Polypus issued three seperate Branches, which ramified into

many others, & went ~~upper~~ between the carnosæ Columnæ of the external Substance of the Heart — This was its Adhæsion & this what detained it in the Cavity during each Systole of the Heart.

2. The Polypus, from the Beginning of the Pulmanory Artery to its Bifurcation, is about two Inches & an half in length, & a quarter of an Inch Thick — This it continued to its Division — one Branch going to the Right the other to the left Lobe of the Lungs

3. The Bifurcations were different in Length, that one, wch went to the left Lobe, was longest, being about four Inches & an half long including the Filaments — The Filaments being about an Inch & an half, several of wch doubtless entred at several Divisions of the Pulmonary Artery — The other Branch was about four Inches & similar to the ~~former~~ — The whole Length of this Polypus is about twelve Inches ~~long~~ filling the Ventricle & Pulmonary Artery nearly — — For a more particular Satisfaction of Curiosity & your Improvement I refer you to the Polypus,

which is deposited in the Pennsylvania Hoſpi-tal among many other Curiosities equally curious

Formation } The first Beginning of this Polypus was doubtleſs, when the Blood was not in a sufficient Motion to keep the coagulable Lymph from uniting together & seperating from the Maſs of Blood — or from too great a Quantity being forced into the Heart — this we may deduce from the Use of spirituous Liquors, or at least a poſsible & common Effect of its Use, a Person's being exposed to the cold — It is well known, that Cold constricts the Veſsels of the human Body, & thereby forces the Blood into the Heart from the Surface, which is in the Heart accumulated — from this Accumulation the Motion must be retarded, conſequently the coagulable Lymph will concrete into spungy Subſtances similar to Fibres — The returning Action of the Heart is not sufficient to diſsolve this Concretion; but compacts it into a fleshy Subſtance, & these Fibres are firmly cemented togather by the Glutinous Part of the Blood, consequently the Polypus is this coagulable Lymph condensed by Action, & cemented by a Gluten which are in the Blood — The Concretion being formed in this manner, it is easy to concieve, that some of those coagulated

Fibres might be formed between the carnosæ Columnæ & the external muscular Subſtance of the Heart.

Anasarca, & Hydrops Pectoris. These are readily understood to be consequences of Obstruction – The obstructing Cause being found the difficulty ceases — Then the only Difficulty is, why the left Cavity of the Thorax was filled with Serum & not the other —? It was observed, that in the left Lobe of the Lungs there was Pus formed, which evidently shews, there was an Obstruction, consequently a Transudation — The Circulation being carried on but slow affords a Reason, why the Serum was rather Bloody. There was a small Quantity of Water in the Abdomen — The Vena Cava paſsing thro' this Cavity accounts for this Phænomenon — You may Query, did not that Portion of the Vena Cava from the Diaphragm to the Right Auricle aſsist in the Formation of the Hydrops Pectoris? — To which I answer, no further than it supplied the absorbing Veſsels with Lymph otherwise there would have been a Collection of Water in the Right Side — &c

Asthma; having been rather Prolix I defer accountg for this Symptom, as it may be easily deduced from ye Case as it is stated — &c &c

J. A.

A Case of cutaneous eruptive Tumors of an infectious Nature.

The Case of a Patient, who has been under my Care for some Time, who to remove the Complaint has tryed the Æthiopic Pill & last Winter was for several Weeks under a Course of ye Solution of ye corrosive Sublimate with Decoctions of Sarsaparilla, Guaiacum &c. The successive Crops of these small cuticular Tumors keep him in a State of Cælebacy as he hath from a late Instance reason to believe they are communicable in Intercourse with Females both to ye Mother & Child. What occurs to you as a proper Method of Cure I beg you will communicate by Post if no readier Opportunity offers by private Hand —

Fredericksburgh

Hugh M—

The Case state the Patient himself

When an Infant, I had Ringworms on ye Head, even to the extream Edges of ye Hair & was cured by outward Applications after having them about four Years. This left no apparent Effects behind, ye Head is quite free from Scars & more than commonly full of Hair. Till about 20 Years of Age I was very Healthy & hardy & subject to no Disorder but ye Fever & Ague but had a cutaneous Eruption on my Face & Breast from my Infancy, which ye Physicians who saw them called Courage-Bumps & said would be outgrown. I took frequently large

Quantities of Æthiops Mineral (a Prescription of a certain Physician in Maryland to a Patient labouring under ye like Complaint) but I never restrained myself from Eating & Drinking or any usual Exercise. From this I found no Relief soon after I began ye Persuit of a Business that required Riding from one County to another in wch the great & sudden Changes from Heat to Cold, extraordinary Fatigues together with my old Companion the Fever & Ague threw me into a very feeble State of Health these Eruptions increased in Number & now took Possession of ye Shoulder Blades. In the Winter after I was troubled with a Number of very bad boils but after suffering much & getting the better of my Prejudices against Mercury I took a large Dose of Calomel wch carried off the Boils. The former cutaneous Complaints remained & has continued to this Time. About nine Years since the Parts affected were chiefly ye Shoulders & Breast & so across on ye Tops of the Shoulders & Collar Bones. Also a few of these Eruptions [illegible] descended down ye Back sometimes as low as ye Hips. They are very thick in Spring & Fall & likewise in winter when I otherwise enjoy the most vigorous State of Body almost totally disappearing in Midsummer when I am commonly in a low State of Health. The Heat I find is a great Enemy & the Cold a Friend to my Constitution no sooner do I gather Strength from ye Approaching Winter than these Eruptions begin to return. In Health I am perplexed with itching almost insufferable so that I am obliged to scratch off ye Skin very often but it immediately cures as does every Kind of Wound I get in the Skin ——

The Eruptions rise in ye following Manner a small Bump with little or no Inflammation or Soreneſs rises under the Skin it has an Orifice or Duct wch being naturally open a moderate Force will squeeze out ye Contents wch are very uniform it appears like a compleat Globule or oblong Bag containing a thick or tuffish Substance, the whole is about the Size of a Grain of Flaxseed of a brown Color or rather transparent when these Tumors are seen deep under the Skin; wch is often the Case the first Appearance is an Inflammation ye Skin being not yet raised but nevertheleſs upon preſsing ye Spot it is as tender as a Boil, this increases a little as it advances to Maturity wch is longer or shorter according to ye Depth: sometimes it wont cure till it gets a Discharge thro' ye Skin wch is affected by ye advance of Putrefaction within & frequent scratching & putting off the Scab occasioned by scratching. At other Times after a while the Inflammation of ye Pustules sink without any apparent Discharge. When ye Paſsage is made by scratching as before mentioned on a slight Squeeze ye Contents slip out of the same Kind as before described but being a longer or shorter time confined ye Contents are diſsolved: some of these Eruptions are so long before ye Vent themselves as to be totally diſsolved & then ye Discharge is a good Deal of thin white Matter not fœtid. It is to be observed that these Bumps are extreamly tender yet so soon as ye whole of ye Matter in ye Bag is squeezed out ye Part is not more tender than any other Part of ye Body & cures up immediately without any further Discharge & so another Sett succeeds. Of these that sink and cure without any apparent Evacuation it is certain they are as sensible of ye Touch as any & ye Inflammation last till ye little Bag is totally dissolved under ye Skin & then ye Pustule is soft & will bear ye Touch & dries up very soon without any Scab.

To my Knowlege I never had any Symptoms of ye venereal Disease; but a late Event shews that this Complaint may be communicated to others. A Female Acquaintance of mine is now afflicted in ye same Manner as myself but its first Appearance upon her was a prodigious itching & frequent ~~Clot~~ Blotches but they are now distinct like mine. Her Child was born in October 1765 with frequent Blotches also on its Skin wch did run but dried up of themselves in about a Month. To appearance ye Child is a very forward, healthy robust Child as yet but in October past ye Eruptions appeared quite distinct & I believe it has a few now & then remaining. It is nursed by its own Mother & neither she or the Child appear better or worse   January 1767

The above Case was laid before ye Philadelphia medical Society & the following Observations were recommended to be transmitted by ye first Oppertunity to Dr M—

No Disorders appear more obstinate than those of ye Skin whether it be that they are so much out of the Laws of ye Circulation & reach of internal Medicines or that they usually are connected with a Disease of ye small Glands where ye Fomes may be generated & afterwards thrown out on ye Skin.

In the Present Case a warm Bath appears very proper to relax the Pores of the Skin wch from the Winter's Cold often arrests ye Matter in its Passage out of the Body by Sweat or

Perspiration as ye Eruption almost totally disappears in Mid:
=summer. A Flesh: Brush or Friction with a flannel Cloth after
warm Bathing may be of great Service.

The Æthiops Antimonialis taken in ye Quantity of a
Scruple twice a Day together with a Diet Drink of Sarsaparilla
Guaiac &c or in it's Season sharp pointed Dock is recommend:
:ed- This is intended as an alterative of a milder Nature than
the Æthiopic Pills & of wch the Stomach will bear ye Continuance
much longer

For external Application - the following Oint:
:ment is advised after the Use of these Powders continued some
:time. The previous Use of ye Powders will prevent ye ill Effects
of ye Eruptions wch otherwise might be thrown on ye Breast &
Viscera of ye Abdomen by external repellent Applications. viz

℞ Præcipitat: rubr: ʒij optime levigat:
Axung: Porcin: ʒij M ft Unguentum

About ye Quantity of a Nutmeg of this is to be rubbed on ye
Hams & about the Flexure of ye Arms every Night at Bedtime
taking Care not to catch Cold.

The above Ointment is præferred in ye present Case to
Aq: Phagæden:. The Tumors themselves may be rubbed with a
little of this Ointment.

It is to be observed that this Course especially ye warm
Bath & Friction is recommended in ye Winter Season & if the
Body is too much relaxed by it either then or in ye Summer
may be braced up with ye internal Use of ye Bark

If these should not answer Pine: Bud Tea or Tar: Water
may be tried & lastly ye Drinking of & Bathing in Salt: Water
for a length of Time will probably be very beneficial

Medicines ordered in an Asthma

℞ Pil: Rufi
Gum: Amon āā ʒiiß
Calomel - - ℈j
Syr: Alb: Q S ut f:
Pil: N° Lx.
appellr: Pil: laxat: Gummos:

℞ Pil: Gummos:
Gum: Amon:
Pil: Scillit - āā ʒvj
Sapon: Venet
Cinnab: Antim āā ʒß
Bals: Peru: grcxx vel ʒij
Syr: Alb: Q S ut ft Maſs
Pil: ex sing: drachm: ft: Pil: N° xij
appellr: Pil: Pectoral: —

℞ Pulv: Cort: Peru: ℥j
Cinnab: Antim ʒß
M. D: in Chart: xvj
appellr: Pulv: Antispasmodic:

℞ Oxymel: Scillit
Vin: Antim: āā ʒiij
Pulv: Emetic: nost: ℈j M.
appellr: Mist: Emetic:

℞ Lac: Amon: ℥iij
Aq: Menth: pip: s. ℥ß
— Piper: Jamaic:
Vin: Antim - - āā ʒiv M.
appell: Mist: Asthmatic:

℞ Pulv: Valerian: silv:
—— Senek craſs: āā ʒß
M. D: in Chart: iv.
appellr: Pulv: Valerian:

Epispast:

Elixr: Asthmatic: ʒiv

Mr P— was seized with a violent Fit of the asthma who was order to use the Elixir asthmatic & Lac Amoniac & at a proper time a Vomit — these were used advantageously with a pectoral Decoction —

Direction for Mr P— to use ye above Medicines —

May 1st 1767 Please to take three of ye pectoral Pills every morning Noon & Evening together with three large Spoonfuls of the asthmatic Mixture washing all down with your usual Drink

The Bowels should always be kept gently open rather than costive, therefore whenever you are costive take three of ye laxative Gum Pills three Times a Day, till that costive Habit of Body is removed, instead of the pectoral Pills; but when ye Bowels are open return again to ye Use of ye pectoral Pills. You may take of ye asthmatic Mixture at the same time you are taking of ye laxative Pills.

At ye Time ye Difficulty in Breathing is on you, soak your Feet well in warm Water especially before going to bed, & let them be carefully wiped dry to prevent catching Cold & this may be repeated every Night & Morning or oftener, as long as the Difficulty in Breathing continues. Whilst ye Fit is on take a large Spoonful of ye paregoric Drops every Night at bed time after using ye warm Bath.

During ye Fit take likewise four Ounces of Wood-lice — pour on them when bruised a Pint of boiling Water, by little at a Time, after standing a few Minutes or a Quarter of an Hour strain off ye Liquor, add half a Gill of clarified Honey, half a Pint of Wine & ye Yolk of an Egg & take a Teacupful of this several times a Day.

At this time you may also use a Tea made of Valerian &c of wch I have ordered four Papers — One Paper at a time to be put in a Teapot with a Pint of boiling Water & a Teacupful to be drank frequently, sweetened with Molasses or Honey.

In a very little Time you will observe wch of those does you most good, & make most Use of that wch you find most beneficial. A Teacupful of Molasses taken all at once about this Time of ye Disease has often relieved ye Breast very much.

In a most violent Fit wch will not give Way to ye usual methods & especially if ye Pulse is full let seven or eight Ounces of Blood be taken away from ye Arm (but this is not to be repeated often & only in violent Fits of ye Disorder) & continue ye preceding Medicines

If ye Fit should return Quickly again or be long protracted apply ye Blister to ye Neck.

Two or three gentle Vomits in this Disorder taken at the Distance of a Week or ten Days from each other will be highly proper if ye Difficulty of Breathing does not give way to ye other Medicines in Use. On Account of your being hard to be worked with a Vomit I have ordered ~~an~~ ye Oxymel of Squils quickened wth an emetic Wine &c of wch please to take four large Spoonfuls for a Dose, drinking warm Water or chamomile Tea to assist the Operation. If it does not produce ye desired Effect in half an hour take half a Spoonful more of ye same with every each Cup of warm water or chamomile Tea till it works sufficiently. Towards ye End of ye Operation, drink of Chicken Broth or warm Water-Gruel to turn it downwards & when it is pretty well done working take a Spoonful of ye Drops markt paregoric Elixir & go to bed.

When you get somewhat better, you may omit the other Medicines for a while & take one of ye antispasmodic Powders Morning, Noon & Evening till all are taken, mixed up in a little Honey. then return to ye Use of ye other Medicines.

Let your Food be of easy & light Digestion: All Sort of flatulent & viscid Diet is improper. Eggs, Broth, Veal, Mutton Chickens & Beef as they do not swell in ye Stomach like Bread nor prove flatulent as most vegetables & Sallads do, are proper for asthmatic Patients. Garlic & Onions are good. Fat Pork

&

of Bacon are not good as they load the Lungs with a viſcid Fat. Strong Liquors are hurtful in ye Fit & new Drink of whatever Kind is always improper, as new Beer & Cyder. Toast & Water with a little Brandy or Wine is good. The Yolk of an Egg new laid taken in a Glaſs of Wine every Morning is good or an Egg beat up with a little loaf Sugar & a Cup of Water with a Spoonful of Wine is also good. Avoid eating much Supper. The following is a pleasant & wholesome Drink viz Boil half a Pint of Milk with a Gill of Water, sweeten it with loaf Sugar or Honey & add ye Yolk of an Egg wch must be beat up with the Rest—

Elecampane & Liquorice Root should have a Place in your diet Drink if they are not mentioned in the Prescription

Such Exercise as you can take in fair Weather is recommended either walking a little or Riding on Horse-Back. Avoid moist & cold Weather as being very prejudicial—

I am Yours &c

Οὐ χρειαν ἔχȣσιν οἱ ὑγιαινοντες ιατρȣ αλλ' οἱ
κακως εχοντες —— Λουκ: Κεφ: V. 31.

Gum. Mastick
Oliban. aa ℥ss
Merc. Crud ℥j sol. in 2 ℥
Spt. Nitr the Wax Suit &
Gums to be melted in an
Earthen Vessel, Stirring them
with a wooden Spatula then
the Mercury disolved in the
Spt. Nitr. to be added. The
Mixture to be kept on the Fire
untill the Spt. Nitr be evaporated
frequently Stirring it ——

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eating much Supper.

The following is a pleasant & wholesome Drink viz^t Boil half a Pint of Milk with a Gill of Water, sweeten it with loaf Sugar or Honey & add y^e Yolk of an Egg w^ch must be beat up with the Rest–

Elecampane & Liquorice Root should have a Place in your diet Drink if they are not mentioned in the Prescription–

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I am Yours &c

℞ Ceræ Flav.
Cer. Ovin aa ℥j
Gum. Mastick
Oliban. aa ℥ß
Merc. Crud ℥j sol. in 2 S.
Spt. Nitr the Wax Suit &
Gums to be melted in an
Earthen Vessel, Stirring them
with a wooden Spatula then
the Mercury disolved in the
Spt. Nitr. to be added. The
Mixture to be kept on the Fire
untill the Spt. Nitr be evaporated
Frequently Stirring it —

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The following is a plea
half a Pint of Milk wi
loaf Sugar or Honey & a
beat up with the Rest —
Elecampane
Place in your diet D
the Prescription
Such Exerc
is recommended eithe
Horse: Back. Avoid
prejudicial —

A Case

A Woman aged 30 Years, formerly of a healthy Constitution, about four Months since when menstruating was exposed to Cold; Upon wch her Legs turned Oedematous especially at Night, since that Time she has menstruated but once & that only for a few Hours. at present her whole Body is oedematous she is not sensible of any swelling in her Belly; but says she passed less Urine within these eight Days than usual; she has a Cough & expectorates tough viscid Phlegm; she is frequently subject to Flatulencies & the Globus Hystericus, her appetite continues pretty regular, Pulse low, she complains of Nausea, Indigestion & an Inclination to Vomit.

Quaeritur, quis morbus
Diagnosis
Ratio Symptomatum
Prognosis &
Methodus medendi?

Altho ye preceeding Case, in my opinion, might have admitted in ye Description of it a more full & complete Enumeration of Symptoms; yet we have a sufficient Number of them described to ascertain ye Name & Nature of ye Disease, & to lead us to some general Indications of Cure.

The Complication of Evills with wch our Patient is beset are very well comprized under ye Name of Cachexy or a bad Habit of Body "Malus atque vitiosus corporis Habitus" as Hypocrates stiles it. This appears to take its Rise in her from an Obstruction of the Menses as the primary Cause.

But since this is a Disease of so complex a Kind, I do not imagine it will be deemed foreign to the Design if I should endevor to give in this Paper a somewhat more extensive Hystory of ye Disease than what is expreſsed in ye Case, before I enter more immediately on ye Consideration of ye Symptoms herein related in wch I shall aim at Brevity as far as is consistant with Perspicuity.

A Cachexy is such a Disposition of Body in wch there is a defective or vitiated Nutrition thro' ye whole Habit.

It takes its Rise from a great Variety of Sources. There are few or no Diseases to wch we are subject, that may not by weakening ye Body & impairing ye vital Functions prove the remote Cause of it. Those in particular wch weaken ye Action of ye Stomach & Intestines & affect ye Liver seem to produce it more immediately; but none more commonly than autumnal intermittent Fevers, great Debility from profuse Evacuations a Contamination of the Blood from ye Suppreſsion of any natural Evacuation such as ye Piles, or ye Menses or a Degeneration of ye Humors from Abstinence, an indigestible Diet or a Slothfulneſs & Inactivity.

From ye repeated Attacks of an intermittent autumnal Fever ye whole Body is weakened, & unleſs timely checked or if improperly managed each fit leaves it more irritable, & a Stimulus may remain, wch will on ye least occasional Cause kindle up a new Fever, & bring on such a Debility as must render all the Viſcera incapable of performing their Office. From ye weak action of all ye Veſsels ye Blood will not be sufficiently elaborated, whereby all ye Humors of ye Body wch are seperated from this common Maſs will partake of ye same Fault, a more languid Motion & a Defect of Preparation hence ye Aliment will not be bro't to that Degree of Perfection wch is necessary to supply a proper Nutriment & the Body will be filled with crude and unwholesome Humors not fit to repair ye Waste wch every Part suffers constantly, whence ye Solids are continually lessened, altho' ye Constitution may be more & more loaded with a useless or noxious Increase of Fluids & ye Nutriment daily more impaired from their being unfit to obey ye Laws of ye Circulation.

Amongst ye mischievous Effects of Autumnal Agues we often with great regret a Congestion upon ye abdominal Viscera particularly ye Liver. This is owing to ye Recurrence of Paroxysms, whereby in ye cold Fit a greater Quantity of Blood is thrown upon ye Viscera, & an increased Secretion of Bile, but as all ye Secretions must be vitiated when ye Blood itself is so, & ye hot Fit is not sufficient to obviate ye bad Effects of ye cold Fit, ye Bile must be faulty & crude from ye imperfect Elaboration of ye Blood, this disposes to Obstruction, & ye Liver wch is one of ye Chylopoietic Viscera being injured together with ye Secretion of Bile whereby there is a Defect of ye Conditions necessary to procure an Assimulation of ye crude Ingesta, wch will therefore not be perfected, whence results a Depravity of Nutrition in a greater or less Degree in Proportion to the Injury of that Viscus, & its impaired Function producing a Degeneracy of Humors & with these a Cachexy or Disease of ye whole Habit of Body.

Great Debility from profuse Evacuations.

The due Degree of Strength wch is necessary to constitute Health depends upon ye daily Repairs of Waste wch is inevitable from ye Action of ye Vessels upon ye Fluids & ye Fluids upon ye Vessels, as it is plain ye Body must soon Decay when every

Moment of our Life something is carried off, wch was become useleſs from ye very Functions wch are eſsential to Life, unleſs it is supplied again by a Restoration of these from Meat & Drink wro't up by ye Powers of ye Chylopoietic & Aimapoietic Viſcera to such a Degree of Perfection as to be aſsimulated into ye natural ~~Flu~~ Fluids & Solids of our Body; this is called Nutrition & requires ye Action of many occurring Causes. A certain Degree of Strength in all ye Veſsels is neceſsary, wch depends greatly upon a Plenitude & that of good wholesome Juices.

If ye Veſsels are too much emptied they looſe that Tension wch gives them Firmneſs & Power to act with any Force on ye Fluids & if these are in small Quantity they are not able to give any Resistance, & hence there is not a sufficiently vigorous Reaction wch is altogether needful to a regular Circulation, hence Languor of ye Vis Vitæ & an undue Aſsimulation of ye Ingesta. That this also must follow where there is not already a large Quantity of wholesome Juices is very manifest if we recollect how much of these are demanded in converting every ye least Particle of our Food into wholesome Nutriment.

In ye Manducation of our Aliment, ye Saliva is plentifully expreſsed & mixed with it. In ye Stomach it meets with ye Gastric Liquors poured out there for a further Attenuation, wch is aſsisted by ye Bile & pancreatic Juice. The finer Part of ye crude Extract wch is admitted into ye small Orifices of ye Lacteals, is further diluted in its Paſsage thro' these to ye Receptacle of ye Chyle by numberleſs Lymphatics discharging their Contents into them, & also in its Course afterwards thro ye thoracic Duct from ye superior Viſcera. The small Quantity of Aliment thus diffused thro' a large Quantity of Juices, wch have already gone thro' ye animal Proceſs is poured out by Drops as it were into a Current of Blood returning from ye Head & upper Extremities and thus deluged in ye Maſs of Fluid already aſsimulated is carried to ye Heart & Lungs for a further Elaboration.

From these several Conditions we may see, how Nutrition must be hindred from a great Diminution of sound Humors by a profuse Evacuation how ye Action of ye Veſsels is leſsened & Crudities produced from an imperfect Aſsimulation & from a weak Concoction a Cachexy brought on.

A Suppreſsion of any natural Evacuation.

Since there are certain Outlets provided by Nature in Order to carry off, whatever is become useleſs in ye Constitution, if from an Obstruction of these any Thing is retained in ye Body which ought to be discharged from them the Humors become tainted so as to be unfit for Nutrition. Thus if ye Blood wch is distributed to ye Uterus, to be thrown out by ye Menses, from catching Cold is still kept in ye System, by a Remora there & Heat, it begins to degenerate so far, that when taken again into ye Circulation it contaminates ye whole Maſs of circulating Fluid & ye uterine Veſsels being shut up by a Spasm constringing their Orifices, it is not easy to open them again & procure ye wished for Exit to ye Menses. By this Retention ye Blood & Juices become depraved & all ye Functions injured & from ye Defect of Nutrition a Cacochymy & Cachexy are induced.

The same Thing happens from a Suppreſsion of the Hæmorrhoids or untimely healing up a sordid Ulcer of a long standing wch had proved a Drain for ye Body; but now being shut up, the acrimonious Matter wch ought to be expelled by it, taints all ye Juices, spoils ye Appetite, impedes ye Aſsimulation of ye Aliment & in like Manner produces a Cachexy only to be cured by opening yose Paſsages again thro' wch ye offending Matter formerly iſsued.

A long Abstinence. This may have ye same Effects as some of ye preceeding Causes, as is sometimes evident in long Sieges when Famine prevails. By ye continued action of ye Veſsels, there is as we said before a constant Detrition of ye Solids wch become uſeleſs & require to be expelled from ye Body & to have ye Place supplied by new Aliment & wholesome Drink wch may dilute ye Salts of ye Blood, sheathe it's acrimony & prove a Vehicle to convey it away by Urine, Perspiration &c. - But for Want of these ye Body continually ~~was~~ wastes away or is loaded with vitious Fluids & a Weakneſs & universal bad Habit ensues.

Indigestible Diet. 'Tis easy to apprehend ye Consequences of Food wch cannot be converted by ye Powers of our Stomach & Bowels into a nutritious Fluid, whether this be owing to a Debility in ye latter not being capable to produce an Aſsimulation or whether it arises from ye Nature of the Diet not easily susceptable of a Change. In this Case the Chylopoietic Organs extract but little, ye Solution is incompleat, ye Body gains but smal Nourishment & ye Chyle from this cannot readily enough be aſsimulated into animal Fluids & Solids by a perfect Elaboration. The Stomach & Intestines are loaded with an indigestible Matter & what Portion of it mixes with ye Blood causes all ye Liquids to degenerate from their pristine Nature & a cachectic Disposition ensues: for ye Food should always be proportioned to ye Strength of ye Person when ye vital Power languish or ye Body is cachectic.

Quo magis nutriveris eo magis lædis; the Aliment not being capable of a thorough Change by ye present Powers of ye Body— Ipsa enim concoctio est in coquentis substantiam deductio quædam ejus, quod concoquitur; corpore igitur secundum naturam habente, quando ad concoquendum familiarem habuerit naturam respectu coquentis mutatio & alteratio totius substantiæ coquendi fit, aut maximæ ejus partis, paucissimo nobis immorante semicocto. (a)

Sloth & Inactivity— These render ye Body soft and weak: for such Person as indulge in Idleness perform but little muscular Motion, wch contributes so much to a brisk Circulation of ye Blood, & ye want of it to a tardy & incomplete Assimulation of ye Chyle; Whilst ye laborious & active Husbandman is able to digest ye most solid & substantial Meats dryed, salted or smoaked & to extract from it a wholesome Nourishment fit to repair ye great Wastes of constant & hardy Exercise. From a Neglect of this necessary Task, much remains in ye Constitution, of wch Health requires to be rid as superfluous nor is there a sufficient force exerted to apply ye Particles of the alimentary Liquid in those Places where they should be restored so that altho' ye Body may be filled; yet it will not be nourished or kept in due Strength: for ye Motion of ye Fluids is too torpid & ye heat diminished, wch would be of Use to dissipate ye thin and watery Parts that now fill ye Vessels & begin to be accumulated in ye Cavities of ye Body producing a Cachexia aquosa or Dropsy.

The principal & most obvious Effects of this Disease are a sallow Complexion; a quick & laborious Breathing

(a) Galen Comment: 2 in Epidem: Tom: 9: Pag: 55.)

Breathing on ye least Motion, Spots & discoloring of ye Skin a Sense of Heavineſs, Wasting of ye superior Parts, oedematous Swellings of ye Legs, Flatulency &c Nausea & Indigestion. I shall now confine myself to ye Explanation of those wch offer in ye present Case chiefly.

Obstruction of the Menses. This may looked upon as ye procatartic Cause of ye Disease. This is satisfactorily end accounted for in ye Relation of ye Case, wch mentions her having taken Cold whilst these were upon her. The Cold producing a sudden Construction of ye uterine Veſsels occasioned a Retention of these at first, which not finding Egreſs by ye usual Outlet, the menstrual Blood was taken into ye common Maſs of circulating Fluids again, at least so much of it as to vitiate them, & impair all the Functions, & altho' they afterwards they appeared once; yet it was but for a short Space of Time together owing to the Weakneſs brot upon the whole System, so that altho' some of the Branches of the Veſsels concerned in menstruating were open; yet the Circulation was too languid, & the Vis a Tergo not sufficient to keep them so, till the requisite Discharge was made, nor is it likely these can be restored till the whole Habit of Body is mended & the System invigorated.

Oedematous Swellings. In cachectic Persons where there is but a partial Aſsimulation of the Aliment into a sound healthy Nutriment we have already shewn there must be a Debility of the whole Body, & consequently of the Veſsels of which the Body is composed & a Laxity of all ye Solid Parts, since ye Strength is so much connected with a due Degree of Tension; hence a more easy Extension of ye Vessels - yielding to ye Fluids, a greater Tenuity of their Coats, & a Separation of ye muscular Fibres joined together in ye longitudinal Direction of these Vessels, & more than common Transudation thro' their Parietes into ye cellular Membrane; & as in this Disorder ye Circulation is languid, ye venal Blood returns but slowly to ye Heart, muscular Motion is too sparingly performed, whence those Assistances are Wanting wch usually quicken ye Return of ye Blood to ye Heart. Then as ye illustrious Baron V. Swieten expresses it ye larger Veins with Difficulty unload themselves, & ye lesser lymphatic Veins, since they cannot empty themselves freely into the larger sanguiferous Veins do not take up all ye Fluid poured into ye Cells & Cavities of ye Body by ye exhaling Arteries (or as ye celebrated Dr. Hunter alleges wch is deposited there by Transudation) The Tunica cellulosa begins to fill with a watery Fluid, & produce an Oedema especially in those Parts at a great Distance from ye Heart where ye Circulation is more languid. Hence Swelling of ye Legs especially at Night: because from standing in ye Day, or setting still with her Feet hanging down, as is probably ye Case, ye Blood is obliged to ascend contrary to its Gravity & there being a Communication of Cells in ye reticular Membrane thro'out ye Body, ye Water by its specific Gravity before Night falls down to ye Feet & puffs them up. But when she retires to bed from her horizontal Position ye venal Blood returns more readily from ye Extremities toward ye Heart, & ye Warmth of the Bed may contribute to render ye Lymph more fluid & to procure a Discharge of some Part of it into ye Veins: so that next Morning these Swellings disappear, till towards Night, ye same Cause having continued, as the proceeding Day; the Tumor of ye Feet & Legs are as large as before or perhaps increased.

There is no sensible Swelling of the Belly, because the Water is not heaped up in ye Cavity of ye Abdomen, for then it would be an Ascites; but is diffused thro' ye cellular Membrane.

Scarcity of Urine. This may happen from the small Quantity wch ye Patient Drinks: for 'tis probable she has but little Thirst, otherwise a Symptom of such Consequence would be mentioned in ye Case. Besides such a Quantity of watery Fluid getting into ye cellular Substance lessens that which would otherwise pass off by Urine. Further we may observe that when ye Motion of ye Blood is brisk, all ye Secretions are proportionably augmented, as a greater Quantity of Liquid to be seperated is applied in a given Time; but in this Person ye Circulation being languid, less of ye Fluid Part to be strained off by ye Kidneys is applied to ye Orifices of ye urinary Vessels from that Cause or from ye tardy Motion is not expressed thro' ye ultimate Branches of ye emulgent Arteries: so that the Scarcity of Urine may depend upon one, or more of these ~~Cau~~ Causes united.

The Cough & Expectoration of a tough round Phlegm. These are ye usual Consequences of catching Cold, an acrid Matter being thereby retained in ye Blood in circulating thro' ye Lungs from a Constriction of ye Vessels produces an Irritation exciting a Cough & a Discharge of viscid Mucus & Phlegm, wch is poured out from ye Glands of ye aspera Arteria, as also is a Flux of Humor from ye same Cause excited from ye ~~Glan~~ Glands within the Larynx & opening upon ye Membrana schneideriana as in all Catarrhs.

Flatulency. It is sufficiently proved by ye Experiments of the very learned Mr. Hales that all our Food contains a Quantity of fixed Air wch when acted upon vigorously by ye Powers of Digestion is mixed with our Chyle & with it enters into the Blood. However when these are too weak from a long Remora in the Intestines & Heat, when the Aliment begins to putrify, the Air is extricated, & is discharged sometimes by Crepitation at other Times aſcending upwards from ye Stomach it finds its Way out by the Mouth in frequent Eructations.

The Globus Hystericus proceeds from ye same Cause & is elastic Air pent up by a spasmodic Constriction near the Pharynx or about the Epiglottis wch is so powerful as to prevent its escape for some Time, whereby a Swelling appears in the Throat, & the Patient seems in Danger of Strangulation, the whole nervous System being often brought into Consent, & seized with Convulsions & loſs of Senſe till the rarefied Air makes its Escape, when all ye Symptoms immediately abate.

Appetite continues. In this Disease ye Food remaining long in the Stomach is not propelled into the Intestines till the acetous Fermentation is begun, whereby an Acid is generated wch stimulating the nervous Coat of ye Stomach gives that uneasy Sensation we call Hunger even where the Power of Digestion are the weakest.

Pulse low. This is a natural Consequence of Debility & tardy Motion of the Fluids & languor of ye vital Powers: for the Blood returns but slowly to the Heart, wanting many of ye Re:quisites of a brisk Circulation, hence gives little Stimulus to ye Heart whose Action consequently & more languid & slow we may add a leſs Secretion of animal Spirits in the Brain upon wch the Brisk Action both of Blood Veſsels & muscular Parts so much depend.

Nausea, Indigestion & Inclination to Vomit.

We have just shewn that a Sense of Hunger may exist even when the Power of Digestion is spoiled, hence ye half concocted aliment produces Crudities & overloads the Stomach & Intestines this Crudity we call Indigestion, & ye Desire which Nature has of disburthening herself from ye Load produces ye Nausea which increased may be termed an Inclination to Vomit.

The Symptoms thus accounted for permits us to pro:ceed to the

Diagnosis

The Pathognomonic of a Disease seldom consists in an individual Symptom; but rather in a Conjunction of all ye Symptoms, or at least of several taken together; but I may discharge this Part agreeable to common Usage I particularly Mark out here as diagnostic Signs the Oe:dematous Tumors wch follow from ye Body being filled with crude Humors degenerating from ye Laws of Health, and swelling the whole Habit of Body also depraved Appetite & Indigestion

Prognosis

Prognosis

It is very difficult to say with any Positiveneſs what will be the Event of this Caſe; there are several Symptoms wch no doubt will require ye utmost Attention & Skill of ye Physician, ye Globus hysterieus, low Pulse a general Oedema shew a great Weakneſs of the whole Habit of Body, & threaten to end shortly in a confirmed anasarcous Dropsy, if ye Patient be longer neglected; but on ye other Hand, as she is said to be anticedent to this Complaint of a healthy Constitution, we imagine ye Stamina are yet good when if properly aſsisted by Art, & as ye Spring now approches wch will add greatly to the Efficacy of Medicine, we may, by repeated Cathartics for some time to discharge ye Water & by Exercise, wholesome Diet with chalybeate & bitter Medicines, hope to restore her to an entire good State of Health if she is orderly & careful in taking Medicine & following Directions but it may be some time after that before she has a Return of the Menses, as ſhe must in ye Course of the Cure undergo pretty plentiful Evacuations. However that this favorable Prognosis may take Place no Time is to be loſt in making the attempt.

"Principiis obsta, sero medicina paratur
"Cum Mala per longas invaluere moras!" Sylv:

Methodus Medendi.

The principal curative Indications are

I. To cleanse & strengthen the Primæ Viæ
II. To carry off the Water of ye Oedema from ye cellular Membrane.
III. To excite a brisker Circulation.

IV. To procure a better Digestion.

V. & lastly, To strengthen ye whole Habit of Body.

Perhaps two or three of these Indications might properly enough be comprehended under one & the same Head, as ye Operati:on of the Medicines are so analogous.

The Ist Indication of cleansing ye primæ Viæ is to be answered by a gentle Vomit *first* to cleanse ye Stomach & to discharge ye acrid Reliquiæ of ye Food, wch creates a false appetite & *secondly* by a moderate Cathartic as Rhubarb to scour off that useleſs Saburra with wch the Intestines are loaded, whereby both will be better able to do their Office & the Medicines have a better Effect. If from a closer Examination it should appear that an Acid is generated by ye Food either from Sour Eructation, or from ye Stools, wch sometimes dis:cover it, I would recommend a few Grains of Salt of Tarter to correct it once or twice a Day then repeat ye Doſe of Rhu:barb, wch will strengthen ye Intestines as well as carry off any looſe Fæces. It is best to be given at bed Time as it is slow in it's Operation & would then begin to take Effect in ye Morning. The good Effect resulting from this would be, that we could then with more Hopes of Succeſs proceed to ye second Indication namely

II. Carrying off the Water of the Oedema.

1. By Cathartics of a stronger Kind than ye preceeding
2. By Friction
3. By Diuretics
4. By Sudorifics &
5. By Exercise

Some

1. Some Medicines seem to have a Power of promoting a paticular Secretion electively. Some act by Stool & increase ye watery Secre:tions that Way: Jalap is principally used with this View & is præferable to some others given with ye same Intention as Scam:mony, Guttæ Gambæ. These act too powerfully & raise too great a Commotion, therefore are not used unless ye milder do not prove effectual. Syrup of Buckthorn has been in great Request and may be given to an ℥j ft Dose twice a Day.

2. Friction increases the Circulation, promotes ye Return of venal Blood to ye Heart & by emptying these Vessels allows an increased Absorption of ye Lymph from ye cellular Membrane & brings it again into ye Circulation from whence it will again be strained off by ye proper Emunctories.

3. Diuretics with this View may be given. The neutral Salt commonly prove diuretic increasing ye Quantity of Urine & may be given in small Doses as ʒß repeatedly every three or four Hours — or

4. Sudorifics in the following Formulæ viz.

a warm cordial Julep. ℞ Aq: Menth: ℥iv
— Aromat: ℥ij
Tᵃ Castor } aa ℥j
— Croc: }
Sal: C.C: vol: ʒiß
Syr: alb --- ℥j M. ft Julep: card:

℞ Ther: Androm: ʒij
Pulv: Testac: ʒj
Gum: Camph: ℈j in Spt: Vin: solut:
Syr: alb: Q.S: ft Bol: vj sudorific.

to be taken one every four Hours with a Spoonful of ye cordial Julep in case attempting to carry off by Sweat is preferred to

Diuretics of which these Medicines are to take Place or after they have been tryed sometime & as the Water lies near ye Skin this seems ye most natural Way of carrying it off viz by ye Pores. Sweat is not to be so much encouraged by Drink as warm Bed=Cloaths on the Patient.

5. Exercise promotes ye Resorption of Water in ye same way as Friction —.

III. Indication to excite a brisker Circulation. This is answered in the foregoing by warm cordial aromatic Medi=cines, Friction, Exercise, as Walking, Riding in a Chaise, on Horse=Back &c —

IV. Indication to procure a better Digestion. This ~~should~~ be done by proper Diet for wch purpose Milk is very good, which is a kind of Chyle already prepared. The Salt of Tartar recom=mended to correct ye Acidity would prevent its curdling, or Tes=taceous Powders might be given with ye same View as an Absorbent. Panada & Rice Soup are very nourishing & of easy Digestion. These may be mixed with Spices in a small Quantity to strengthen & invigorate ye Stomach & aſsist the Powers of Concoction; but a few Glaſses of generous Wine mixed with ye Food of each Day would be preferable to every other Medicine given with this Intention.

V. To answer ye Last Indication of strengthening ye whole System & preventing a Relapse we should choose wholesome Diet such as already mentioned, then Soups or Broth, as ~~chick~~, Chicken=Broth, Beef Soup with a little of ye white Meats as the Patient is able to bear. Pure Air is neceſsary wch makes the Lungs expand more freely & increases ye Power of Cir=culation besides ye good Effect of it in our Food according to Mr. Hales.

Exercise whether Walking or Riding such as requires mus:-cular Motion suited to ye Strength of ye Patient wch thereby daily increases — Nam vires acquirit eundo —

Boerhave recommends a Bath by wch we presume is meant cold-Bathing. This has a wonderful Effect in bracing up ye Body increasing ye Tone of ye Veſsels & the Strength of ye whole System; but is not to be employed till ye Disease is subdued & nothing remains but Debility.

Van Swieten observes in his Comment on ye 1179 Aphorism that alkalines & saponaceous Medicines are sometimes conve:-nient, or greatful Emetics, or moderate Cathartics: for even towards ye latter End there may be a load of indigestable Matter in ye Prima via wch being discharged ye Patient gains Strength a Pace, & the alkaline Salts & Soaps made of alkaline Salts & Oil are very efficacious in resolving ye Viscidity of ye Fluids.

But ye principal corroborant with Exercise is ye Use of Chalybeates the former to make good & keep up ye Effects of ye Latter. He furnishes us with two curious Observations rela:-tive to ye Use of ye Limatura Ferri, wch are of great Use in Prac:-tice & shows ye Importance of chymical Knowlege if we would prescribe with Judgment & Elegance.

1. He forbids the Use of alkaline Salts & Soaps during the Use of this: Because ye Limatura Ferri is readily diſsolved in a vegetable Acid & then, say he, an Alkali is added to the Solution ye Iron is precipitated & resembles yellow Ocre, which being entangled in ye Mucus of ye Stomach & Gutts concretes with it into a Maſs scarcely soluble & produces much Mischief. †

2. He recommends in such Cases where a cholonic Woman labors under an inert Mucous Cacochymia that we should — give Peparations of Iron diſsolved in a vegetable Acid rather

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† Tom: 3 Pag. 660

than in Substance least this mixing with a viscid Mucus in the Primæ Viæ should have ye same Effect; but where there is an Acid in ye primæ Viæ, then Iron in Substance is best: because it unites with & metigates ye Acid Acrimony, & being dissolved in this acid Menstruum it has all ye wished for good Effects.

Bitters are sometimes joined very properly with the Chalybeate in a Wine amongst which that noble Bitter & Corroborant Cort: Peru: is to be præferred. The following may serve as an Ensample of a good Bitter & chalybeate Wine vizt

℞ Fol: Absynth:
Summit: Centaur: min: āā ʒij
Cort: Peru: crass
Scoriæ Chalyb: āā ʒſs
Cort: Aurant: contus:
Bacc: Juniper - - - āā ʒij
Flor: Chamomel:
Sem: Fœnicul Dulc:
— Coriand: - - - - - a a ʒſs.
Vin: Alb: - ℔ij

Digerantur vase clauso prope ignem Diebus ij - tunc capt ℥ij bis die.

The fœtid warm Gums brace ye Stomach & strengthen the System. When tho't necessary they are given in Form of Pills to about gr x or xij every four Hours.

The Return of ye Menses depends on amending ye Habit of Body, filling it with good Humors & strengthening ye whole System. The Medicines recommended here under those Indications answer that End, & some of them on that account are called Emmenagogues.

I have now only to add that ye Flatulency & Globus Hystericus are all relieved by ye foregoing Medicines particularly ye warm fœtid Gums wch are amongst ye most powerful Antispasmodics.

The Cough is prescribed for when we give a Vomit with another Intention, here 'tis only accidental, & not a common attendant of a Cachexy. The Emetic given to cleanse ye primæ viæ will also help to attenuate ye viscid Phlegm wch is coughed up afterwards. To promote Expectoration an Electary of ~~Sperm~~ Sperma Ceti will be proper or Balsam: Locatelli &c.; but what is better where the Humors are sluggish as in a Cachexy & coinciding otherwise well eno' with ye general Intention is Lac Ammoniac: exhibited occasionally.

To be more particular on the Method of Cure wch is to be varied according to different Circumstances would only be trespassing by Prolixity without Perspicuity.

N.B. The Name Cachexy may be tho't improper as it is a Term of great Latitude & therefore may only signify that ye Patient is disordered. From its vague & indeterminate signification it may also be tho't inconsistent to attempt giving a Pathognomonic of a Disease wch has no proper Foundation for it's Distinction from other Diseases since ye Pathognomonic Signs ought always to be in every Case found coming under any Disease & to distinguish it from all others

But we may on ye contrary observe that Pathognomonies do not consist in individual Symptoms but in a Syndrome or Concursus Symptomatum. Cachexy always implies depraved Nutrition & tho' other Circumstances are to be taken into Consideration yet when it is a principal one itself, it deserves to give a Name to the Disease as much as any other Symptom, whether obstructed Menses, dropsical Swellings &c especially when there is a Complication of Diseases —

Quæritur
De usu & abusu Concubitus? or
In what consists the Use & abuse of Coition?

To answer this Question properly requires great Experience & Observation in ye healing Art: & aſsuredly it will not be expected from me to advance any Thing with Propriety on so interesting & delicate a Subject. There is great Danger least I should offend on one Side by Indelicacy & on the other by an affected Squamishneſs: for these Reasons I shall endeavor to answer the Question with all poſsible Brevity that may in the least be consistent with Perspicuity.

Nothing seems to have manifested the Goodneſs & Wisdom of the Creator more than the particular Care taken throughout the three Kingdoms Animal, Vegetable & Mineral with Regard to their Fructification.

It is now known what Neceſsity there is of the Intercourse between the different Sexes of Plants that the great Work of Fructification may go on. In this we may see and admire the great Beauty & Benevolence of Providence, who hath provided for them in a surprizing Manner. Plants, because they have not a Locomotive Faculty, nature has provided against that Inconvenience in many different Manners, First that the Farina fœcundans might

be carried from one Place to another, she hath formed many
of the Flowers with Nectaria in which is secreted a sweet
Juice which attracts Bees & some others of the Tribe of Insects
these by their Fluttering will take up some of their Farina
& carry it to the Fœmale Flower & by this means the Impreg:
:nation is carried on & that this immediate Connection of
the two Sexes may be proved by many Instances.

1st The Manner of Caprification formerly practised in the
Islands of the Archipelago & described by Theophrastus &
Pliny; but since Tournefort in his Travels thro ye Levant
mentions this Practice as performed in his Time; the An:
:tients aſcribed the Maturation of the Seed to the Insects
that were shaken over the Trees & this was also the Opinion
in Tourneforts Time. But since it hath been found ow:
:ing to the Farina fœcundans which those Insects con:
:veyed to the Germen: for if this Operation was not per:
:formed the Fruit would never come to Maturity.

Secondly - The fœmale Organs are often situated be:
:low the Male so that by any adventitious Cause the
Farina may fall from the Male on the fœmale Flowers.

The gentle Zephyrs in the Spring gently Waft
this Farina from the Male to the fœmale Flowers &
thereby fœcundate them

The Palm, Valeriana & the Claſses Monoicea
& Dioici of Linnæus evince the Neceſsity of an actual
Copulation

Copulation (if I may be allow so to speak) & indeed the sole End of their Creation seems to centre in their Fructification for as soon as that is performed & the Seed is mature they loose all their Beauty & the greatest Part actually die & the other seems to suffer a temporary Death untill the allenlivening Spring returns.

"Ver adeo frondi nemorum ver utile sylvis"

Unto the Brute Part of the Creation Providence hath very wisely ordered & affixed particular Seasons of ye Year for the Propogation of their Species & this is generally observed to be in the Spring, which by its genial Warmth promoting a quicker Circulation enlivening those that are almost torpid during the severe Cold of ye Winter & exciting them to the mutual Desire of Congreſs.

"Avia tum resonant avibus virgulta canoris
Et venerem certis repetunt armenta diebus"

By this means their Young become strong & lusty during the Summer's Warmth & are thereby enabled better to endure the Winters Cold. Another Advantage which ariseth from the Knowlege of their stated Times of Propogation is the safety of Man: for at this particular Season the fearful Stage becomes fierce & dangerous.

"Instar tauri ruentis ad venerem" Hor:

Harvey hath made this Observation who perhaps had the best opportunity of being acquainted with their Natures. Eodem tempore furore libidinis saeviunt & Canes, Hominesque adoriuntur, aliàs verè timidi valdè

"et imbelles sunt, ac vel a minimo latratu Caniculæ sese
"continuo in fugam proripiunt — Et mas postquam &
"femellas suas implevit deferveſcit simulque timidior factus
"ac macilentior gregem deserit, vagatur solus avide paſcit
"ut adtritas vires resarciat nec fœminam aliquam pos-
"tea toto anno aggreditur

But unto Man there is no stated Time Prudence & Reason are given him to regulate these tumultuous Paſsions; but least we should be backwards in the Performance of our Duty Nature hath added the most exquisite Pleasure, without which perhaps the greatest Part of Mankind would not have given themselves the Trouble to propagate their Species. But even this Pleasure which gives a Relish to Life will by an immoderate Use loose its Effect, leave us also a debilitated Body and what is worse all the vexatious Ideas that attend Impotence & are the Consequence of Debauchery.

I shall now proceed in answering the Quære by different Collections from Authors which I have made with Regard to its Use in general.

Celsus observes that this cannot be regulated by the Numbers of the Times; but that Regard should be had to the Age, Strength & Constitution of the Person, & that it be admitted without Prejudice to Health when prompted by Inclination as it intimates a Plenitude of the Veſsels,

which by its Irritation sollicits for Enjoyment & conse:
:quently (as Sanctorius hath observed hath observed) when the
superabundant Fluid is discharged, which excited the Irri:
:tation the Person will be rendered more light & easy; but
this Desire should not be excited by any adventitious
Cause; but these Inclinations are the Consequence of a
sanguineous Plethora, which will increase the Secretions
& according Sanctorius observes that Young Men may be
allowed it with Moderation as it strengthens the vital
& animal Motions by Pleasure & Exercise makes the
Body warmer & exhilerates the Spirits, promotes Per:
:spiration, increases the Elasticity of the Solids by
which means the Blood is put into a brisker Motion
& becomes more fluid & consequently a greater Propor:
:tion of the nervous Fluid is prepared & disposed to the
different Parts of the Body.

Lomnius observes that "Aliquos reperias
"qui nisi sæpiſsime coëant capitis Gravitate, Inap:
":petentia, Concoctionis Difficultate, Præcordiorum do:
":lore ac febribus affliguntur" & this shews that it may
be of Service sometimes & also that it cannot be restricted
to particular Times.

"Utilem concubitum non numerus sed corpora facerent."

But moreover it may be of Advantage in some
Disorders & we know that some Physicians have advised
it in their last Recourse. But more particularly in that
Disorder

Disorder incident to the Fair Sex when the Menses should happen to be obstructed by any Means, they imagine that the Irritation being applied near the Parts, it may promote a Discharge of the contained Blood & certainly if that should not be obtained in this, yet it may reasonably be expected to give the greatest Advantage if the Patient should be impregnated as the Blood would then be directed in greater Quantities to the Vessels of ye Uterus for the Nourishment of the Fœtus & after the Expulsion of the Fœtus & Placenta a considerable Quantity of Blood comes away & the Lochia, which often continue to flow for some Time after, will by relaxing the Vessels of the Uterus render them more liable to yield to the menstrual Flux afterwards & in this Manner a happy Effect may be produced.

Lomnius says it may be of Use to those of a melancholic Disposition, but I suppose in no otherwise than any other Exercise, that is, by diverting their Thot promoting a brisker Circulation & a greater Flow of D Spirits.

Another Disorder in which this is recommended is ye Furor Uterinus that is in the first Stage: for in the second & third it will be more properly cured with Hellebore than Matrimony. Astruc advises this also in the first Stage only after all other Medicines has been tryed; but I should rather imagine that this should be recommended in the Beginning before it degenerates as it were into a Mania. The Intention seems to be the same an in the obstructed Menses.

The Hysterics is also another Disorder in w^ch^ this is also sometimes indicated.

Having shewn the Advantages with which it may be attended we shall now shew the converse & enumerate some of the principal Disadvantages that attend it.

1^st^ It should not be allowed either to the too old or the too Young for as the Poet says

"Frigidus in venerem senior frustraq; laborem
" Ingratam trahit; & si quando ad prælia ventum est
" Ut quandam in stipulis magnus sine viribus ignis
Incassum furit ——— Virg: G: 3 496—

And I think an old Man engaging in the Fights of Venus is like a Traveller that is setting out on a Journey & spends all his Provision in the first Day. It is prejudicial to the too Young by Reason of the Want of Strength to support it: for it is observed that Nothing weakens the System & destroys the Strength more than immoderate Venery & this will have the greater Effect in Proportion to the Debility of the System.

2^dly^ We know that the Act of Coition cannot be performed without a violent Convulsion of the Parts & that the Semen is not ejected without a downright Convulsion or Epilepsy (Van Swieten § 1075) & as frequent

Epilepsies hurt the Functions of the Brain & at last abolish them by a fatal Apoplexy so likewise there are not Instances wanting to prove that an Apoplexy hath been the Consequence of immoderate Venery.

A Paralysis takes place after each Convulsive Fit & the Parts rendered unactive untill again repaired A Repetition oftener than the Regular Indication of Nature and persisted in immoderately will debilitate & enervate the whole System therefore a vigorous & healthy Man may hereby degenerate into a feeble useleſs Creature & become an Opprobrium to Mankind & on a Retrospect even disdained & abhorred by himself.

It is also a common Observation that the more any one Evacuation or Excretion is encreased the Rest will be leſsened in the other Part of the System: so when the seminal Excretion is encreased the Rest of the Body will be depauperated & from thence will arise Laſsitude, Weakneſs, Pains of the Head, Stupor Hectic Heats, nervous Fevers (Huxham on Fevers P: 80) Falling away or Atrophy, Tabes Dorsalis, two Instances of which may be seen in Hippocrates,+ Phthisis &c &c — & these Disorders will be almost incurable as the Persons mind as well as Body will be so depraved as to be obnoxious to the venereal Stimulus from the slightest Accident.

+ Carter Vol: VII. Pag: 171.

There are many more bad consequences that ensue from immoderate Venery; but as the Enumeration of them would be rather tedious than edefying I shall at present only conclude with a very good Advice from Hippocrates "Labor, Cibus, Potus, Somnus, Venus omnia sunto "mediocria".

A Case of an irregular Flow of ye Menses proceeding from long & unusual Uterine Discharges

Dear Sir,

I have for several Months been desirous of applying to you for Aſsistance to my Wife in a Disorder wch has encreased every Month this ten or twelve Months past. I doubt not but you judge from what I have already said that 'tis ye Disorder to wch Women are monthly subject wch I mean. At first ye Alteration from what was usual was only ye too long continuance of ye Disorder; but still with ye Intermiſsion of a Month or nearly; but now she is longer Disordered than otherwise & ye last Ceſsation was but for two Week & she has now continued very bad three Weeks & grows daily worse her Feet at times swell & to appearance she seems several Months gone with Child & is so afflicted with a Pain in her Back that she can bear no Exercise. I should not have neglected asking Advice long before; but that she was so extreamly averse to it & even now but I am apprehensive of very dangerous Consequences from further Delay. I send this without her Knowlege I am

Dr Sr

your humble Servt

To

Dr J. M: March 30th 1767

J—— P—— Junr

The following Medicines were ordered in the proceeding Case — viz —

℞ Mist: ex Oliban: ℥vj
Liq: Laudan ... gtt: XL M —
Sig: Olibanum Mixture.

Pulv: Ipecac: ℈j — Sig: A Vomit.
Pulv: Rhei grs xxv — Sig: A Dose of Rhubarb
Pil: Mathæi grs v — Sig: Anodyne Pill
Pulv: Cort: Peruv: crass ʒij pro Decoct: ℔ij ad ℔j
Sig: Bark for Decoction —
Emp: Roborant: Dorso — Sig: Strengthg Plaister

℞ Pulv: Cort: Peru: ʒiß
—— Gum: Sang: Dracon:
—— Chalyb .... āā ʒij
—— Rhei ... ℈j M & Divid in Dos: xx
Sig: Corroborating Powders —

Directions for taking ye above Medicines —

First let Mrs P—s apply ye strengthening Plaister to ye Back & wear it as long as it will stick. I have ordered her a gentle Vomit of Ipecacuanha wch she is desired to take about three o'Clock in ye Afternoon in sugar & Water & work it off with drinking Camomile Flower or Carduus Tea (the taking this gentle Puke is not to be dispensed with as I am persuaded it will have a very good Effect —

At Night let her take one of ye Anodyne Pills —

The next Day let her take one of ye corroborating Powders Morning, Noon & Evening in a little Syrup, Sugar & Water or Milk leaving no Sediment behind & four large Spoonfuls of ye Decoction of ye Bark, wch is to be made by putting ye coarse Powder of Bark in three Pints of Water & boiling it to a Quart wch put into a close Bottle with about half a gill of Brandy or good Spirit.

The Powders are to be repeated three every Day in like Manner with four Table Spoonfuls of the Decoction as above, except when she takes ye Doses of Rhubarb or ye Olibanum Mixture wch she must do as follows viz.

Once a Week let her take a Dose of Rhubarb in Sugar & Water & drink water-Gruel, Sage-Tea or Chicken-Broath to promote ye Operation & at Night going to bed let her always take one of ye anodyne Pills after each Dose of Rhubarb swallowing it whole & wash it down with any Thing that is agreeable.

Observe that about ye expected Time of ye Appearance of her Courses viz about two Weeks from the Time of ye last Appearance, she must have Blood taken from the Arm or supposing they should come on before she is aware of them let her even then have Blood taken from her Arm to ye Quantity of seven or eight Ounces & drink red Rose Leaf Tea all the Time they are upon her.

At this Time instead of taking ye corroborating Powders & Decoction of Bark she must take ye Olebanum Mixture, two Table Spoonfuls Morning, Noon & Evening (first shaking the Phial) in a little rose leaf Tea. At this Time also she is to keep quite still & for ye most Part lying, not in, but upon ye Bed, dreſsed taking Care not to catch Cold.

If notwithstanding all this, she should have too great a Flow, let her dip a Napkin in cold Vinegar ~~[illegible]~~ wringing it out & fasten round her Middle

As to her Food Jellies are good, Milk, Eggs, Veal-Broath well boiled & Meats of an easy Digestion. A Glaſs of Wine once or twice a Day is proper, if two Ounces of Rattle Snake be bruised & put into a Quart of ye Wine so much ye Better.

Riding gently on Horse back every good Day will be of great Benefit to her. I depend much on the strengthening Plaister to enable her to do it by leſsening the Pain in her Back.

Besides all this she may take or order to be made a Box of Pills of Nutmeg first bruised & lightly toasted, then rubbed in a Mortar into a fine Powder with which as much clean Turpentine must be mixed as will make them into Pills & formed of a moderate Size — three or four of these taken of a Day, every now & then will do her good —

Note, when all her Powders are taken she may take three of these Pills three Times a Day in Place of them. I imagine drinking of y^{e} yellow Spring Water will be highly beneficial, or of Forge Water a Glassful or Tumblerful twice or three Times a Day — I would also recommend cold Bathing, especially at y^{e} yellow Springs w^{ch} perhaps is equal to any other Thing I have yet ordered

Let me hear from you as Opportunities offer I remain

D^{r} S^{r}

Your affectionate Friend

& most humble Serv^{t}

J— M—

To

M J— P— Esq^{r}

April 1st 1767

J— P— Esq^{r} by letter gives an Account that M^{rs} P— had taken y^{e} vomit as directed & that she is seized with her Courses again & in too profuse a Manner &c — for which was ordered

℞ Sac: Saturn: ʒj — Sp^{t} Vin: rect: ʒij
Liq: Laudan: g^{tt} CXX M: cap^{t}
Cochlear parv: j ter quaterve die

Further Directions in ye preceeding Caſe—

You did quite right in giving ye Vomit & I should be glad if Mrs P— could also take ye Rhubarb as directed, the first Dose immediately i:e: to morrow Morning whether ye Courses be on or not, let it be toasted first to render ye Opera:tion quite gentle. This is done by placing it on a Dish before ye Fire at ye Distance of about a Foot & a half or two Feet, till till it changes to a brown Color stirring it well.

The Intention of this Rhubarb is to evacuate the Bowels gently & by relaxing their Veſsels sollicit ye Blood towards those Parts & thus to derive it from its Course. It will leave an Astringent Quality behind which will tend to strengthen ye whole Constitution

After ye Doſe of Rhubarb is done working i:e: at Night give her a second Pill as before directed & apply Cloths dipped in Vinegar not only round her Waste & especially ye small of ye Back (notwithstanding ye strengthening Plaister to ye Back) but also round her Legs & Hams & about her Thighs avoiding so much Bed:Cloaths as will heat & relax ye Body.

While ye Complaints are upon her Mrs P— must not move about but as little as poſsible for fear of increasing them—

If this does no do, the next Day vizt Wednesday— let her tye Ligatures about her Hams, as Silk Garters above ye Knees so as to moderate ye Return of Blood from her Feet upwards; other Ligatures may be made higher up, near ye Top of ye Thighs for ye same Purposes with Cloths or Compresses dipped in cold Vinegar under ye Ligatures & she must lye down. All this is to prevent ye Flow of Blood to ye Parts till Nature has had Time to recruit a little & close ye Bleeding Vessels.

Observe if her Feet & Legs should swell much from the Ligatures they must be loosened by little & little till the Swelling ceases.

This Day vizt Wednesday she may begin & take of the astringent Drops a Teaspoonful for Dose every 3 or 4 Hours as her Stomach can bear till ye Discharge abates in red Rose Leaf or Plantain Tea & drink of these Teas occasionally. If her Pulse is not very low by such a loss of Blood & ye Discharge still continues thro ye Forenoon let about ℥iv of Blood be taken from her Arm. This will not weaken so much as ye constant Flow downwards & will help to revulse ye Course of ye Blood towards other Parts. After this put Cloth after Cloth wet with strong Vinegar to her Body & wash her Legs & lower Extremities all over with Vinegar taking Care to remove the Cloths as they become warm, & also after ye flow abates not to leave any Thing dripping Wet about to endanger her taking Cold —

All her Drinks & Victuals must be cool & her Strength kept up with Jellies & ye like —

In the mean Time she omit ye Olibanum Mixture & the Bark till ye present Flow is over or checked as the means I have now recommended are more powerful.

With Regard to ye Powders & Decoction of Bark my Intention was to strengthen ye whole Habit of Body in ye Intermission of her Complaints & I ordered to discontinue it hereafter when ye Course might come again to prevent any Interruption to Nature wch ye Olibanum Mixture would not give; but strengthen more gradually.

When ye present Discharge is diminished much or wholy abated or stopped apply to ye former Directions

I am Dr Sir

Yours Affectionately
J. M—

To
J— P— Esqr—
April 6th 1767

A Case of obstructed Menses or Emansio Mensium

The Case of a Young Ladie whose monthy Visits are very small tho' sometimes regular attended with a copious Flow of the Fluor Albus & seldom quite clear a sick Stomach slow Fever violent Pains in the Back & Head & great Dizzineſs a shooting Pain from her Breaſt Bone to her Back which at those Times will look red & swell as big as an Egg her Legs & Feet also — These Complaints has attended her 16 or 18 Months except when she has rode long Journeys — She has taken every Thing common to promote her Menses & bleed in her Foot often to very little Purpose her Stomach is now so weak it will scarce retain Food & not one Doſe of Medicine in three or four — I wish it may be in thy Power to help her by this Day Month —

Dear Friend,

I have very attentively considered the Case on which you have been pleased to consult my Advice. It is indeed a difficult & complicated Disorder yet I imagine it is a plain Case & hope will yield to a prudent Treatment But apprehend it will require more Time than you have allotted

allotted to restore her to perfect Health. Tho' I flatter myself she may gain considerable Relief before the next expected monthly Visit & that she may thereby be encouraged in what may be thought neceſsary till a radical Cure is effected

Before I direct what should be done for her permit me to observe that I am affraid she has suffered from that maiden Reserve & strict Modesty so natural to the fair Sex w^{ch} may have prevented her from sooner giving her Consent that her Case should be communicated to a Physician - By w^{ch} I mean that in endeavouring to promote the Menses perhaps by Methods, w^{ch} altho' very common & often beneficial in similar Cases, has not just suited that w^{ch} I have now under Consideration a Weakneſs has ensued - To that I impute the Whites being so very troublesome & of the Colour you take Notice of in the Description - The Habit of Body is now too much relaxed & from this proceed many of those troublesome Symptoms you have related. It sometimes happens that an over-Anxiety to promote the Menses brings on such a Relaxation of the Body as greatly injures Health without obtaining the wished for Intentions.

In the first case the Body must be strengthened w^{ch} is the most effectual Method to cure the Whites & will

be-

be a good step towards filling the Body with healthy Juices & invigorating the Blood so as to promote the Menses — so far in general —

But to come to particulars

I advise my Patient to take a Dose of Rhubarb — of twenty Grains in the Dose early in the Morning — & repeat the Dose in eight Days after, drinking Sage: Tea in a moderate Quantity, & walking about to promote the Operation.

On every Day except when she takes the Rhubarb let her take half a Drachm of the Powder of Myrrh — Morning & Evening, mixed up in the following Draught viz^{t} Pulv: Gum: Oliban: g^{r} xxx diſsolved in about three Spoonfuls of Water to which Aq: Cinnam: sp^{to} ℥ij & sweeten it with Loaf Sugar —

Once a Day viz^{t} about 11 o'Clock

let her take   g^{r} of calcined Vitriol with   g^{r} of the Gum Pill made into   Pills & a Glaſs of bitter Wine to wash it down in which there is half an Ounce of Jesuits Bark powdered half an Ounce of Steel: Dust or Rust of Iron a Quarter of an Ounce of Orange Peel a Quarter of an Ounce of Cardamom Seeds bruised & a little Wormwood to a Quart of Madeira Wine

Apply a strengthening Plaister to the Back —

Let the whole Body, especially the lower Part of the Body the

N.B: Exercise is proper especially riding in fair Weather
her Diet should not be too spare but of hearty Food—

the Legs, Ancles & Thighs be well rubbed two or three Times a Day with a flesh Brush or Piece of Flannel.

When the Appearance of the monthly Return is expected, then especially use Friction; & then let her bathe her Feet in warm Water for a few Minutes at going to bed taking Care not to catch Cold but wipe them well but the warm Water is to be used at no other Time being too relaxing but the following Morning give these two Pills following unleſs the Menses should have come on viz.—
Pil: Rufi gr. xij & Calomel ppt. gr. ij made into two Pills — on which Day no other Medicines are to be taken.

All the Medicines I have prescribed are good to strengthen the Stomach, to aſsist Digestion & to strengthen the Body as well as moderately to promote the Menses — in wh. I hope they will not fail of Succeſs as well as in curing the Whites —

The sick Stomach, Pains & Dizzineſs as well as the Swelling of the Legs & Feet depend on the relaxed Tone of the Blood Veſsels & System in general & on the Obstructions & will cease when those are cured —

Much depends on the Goodneſs of the Medicines & the Manner of their being put up — Particular Symptoms & Circumstances may require some Variation occaſionally —

I am Your sincere Friend

Directions to be observed in treating the Cholic.

Upon a violent Attack of the Cholic it will be always proper to drink plentifully of warm Water or Chamomile Tea, by this means to rinse out the Stomach two or three Times: this itself often removes the Fit, even when violent; but if it is not sufficient for this Purpose begin & take two large Spoonfulls of the following Mixture every two Hours ~~as~~ untill the Pain is easy viz^{t}

℞ Succ: Limon: ℥i
Sal: 🜿 .. ʒß M donec effervientia
cessevit tunc Adde Aq: Menth: piper: sp^{t}: ℥i
— Fontan: ℥v.
Syr: Alb: ℥i
Sp^{t}: Lavend: comp: L. Laudan: āā ʒiß
M f^{t} Mistur & capiat ut supra.

The next Thing to be attempted is to procure two or three loose Stools by Means of these purging Anodne Pills which are

Pil: Cochia ʒij
Sapo: Venet: ʒi
Pulv: Rhei ʒß
Calomel gr^{s} x
Opii .. gr^{s} vj M f^{t} Pil: N^{o}: XL.

cujus capiat ij ter die donec alvus respondeit. chicken-Broth or water-Grewel should be drank to assist the Operation.

So far in Regard to the particular Treatment of the Fit in common —

Further general Directions

Any warm opening Clyster such as Mutton-broth
with

with a large Spoonful of sweet Oyl when the Body is very costive cannot fail of proving useful.

If under a costive Habit of Body you perceive a Fit of the Cholic to threaten you a large Spoonful of Castor Oyl repeated every Hour untill Stools are procured is very proper

To prevent the Cholic

Keep the Bowels from becoming costive by means of any gentle laxative Medicine & drinking warm chamamile or Flaxseed-Tea —

In Fits of uncommon Violence & Duration Bleeding may become neceſsary & will be indispensable when there is a high Fever or Marks of an Inflammation coming on.

For external Application

Rub the pained Part with sweet Oyl mixed wth an equal Portion of Castile Soap diſsolved in Spirit — the apply Bladders of warm Water by Way of Bath besides useing the Medicines already directed.

A Case of a Uterine Hæmorrhage for which Dr. Morgan was consulted.

Case stated—

Mrs Cotnam, above thirty Years of Age of a thin Habit of Body & delicate Constitution, has for these Many Years past been disordered wth an uterine Hæmorrage which flows extreamly irregular sometimes once in three Weeks at other Times not in six, attended with Pains nearly equal to those of Labour. The Discharges is always very great, generally attended with coagulated or clotted Blood nearly the Size of an Egg, Her Complexion extreamly pale her Pulse low & quick, attended in general with Costiveneſs & for near a twelve month past a Hardneſs & increasing Magnitude of the Uterus which I apprehend to be Schirrus. In her Temper very easy & chearful has always been extreamly temperate in eating & drinking & has

never had a Child —

As her Case was judged to proceed from a relaxed State of the Vessels of the Uterus small Doses of Steel made into Pills with a Mucilage of G: Arabic & Strengthring Bitters were used to no Purpose, the Pulv: Stypt: Helvet: with a Decoct: Cort: Aurantior: & Tra: Saturn: were next used with little more than a temporary Relief & at last entirely lost their Effect — The Vitr: Antim: cerat: was then used, which at first had a very good Effect; but soon become as insignificant as the former, her Disorder still continues with an encrease of almost every Symptom —

J: S——

Dear Sir,

A great Indisposition of Body & Mind from a severe Cold that has stuffed up my Head & excited a considerable Degree of Fever has — compelled me, contrary to my Inclination to postpone for these four or five Days past, writing my Opinion of Mrs Cotnam's Case I have however in ye Interim

bestowed a good Deal of Time in thinking of it —

It appears to me very plainly that her Disorder may be attributed to a relaxed State of the Solids (whether this be from her natural Constitution or from any accidental Cause, as a too sedentary Life much thinking or Grief &c) — A Faulty or thin State of the Fluids seems to be a consequent attendant upon such a State of the Solids — From relaxed Fibres & a weak Action of the Solids the Blood is not sufficiently compacted to attain to a due Consistence but is disposed on the least Accumulation or Increase of Motion from Fever or any Paſsion of the Mind to paſs from the lax & dilated Mouths of the Uterine Veſsels — From hence proceeds the usual Flux — From a relaxed State of the Veſsels there may be a greater than usual Dirivation of Blood to the Uterus, hence it's gradual Increaſe of Size.

In Women of a lax Fibre, the Uterus contracts but very slowly; thus it takes a Month or more to be

reduced to its natural Size after Child-Birth or can never be contracted within such a Demension in Women who are reduced very low & have had many Children whilst in the firm & vigorous it returns nearly to its usual State in a few days or a few Weeks after Delivery especially of their first Children —

In the Case you favored me with mention is made of Mrs Cotnam's having never had Children — supposing she never had, the encreased Size of the Uterus may be owing to the Causes which I have aſsigned — The Discharge of Blood in those frequent Hemorrhages may drain the Constitution, without at all diminishing the Size of the Uterus, which may have encreased so far as to be percieved by the Hand preſsing upon the Region of the Pubis or about the Navel & feel hard — but I have no Symptom given by which to believe the Obstruction or Swelling is of a Schirrus Nature —

as to the Pains like that of a Woman in Labour, it attends all floodings almost from whatever

Cause.— When the Courses Cease the Pains are not leſs from an overflow of the Menses than when it proceeds from Abortion —— The Clotts are no more than ye Blood iſsuing from the Mouths of the Veſsels & being retained there till the thinner serous Part seperates from the red Blood & coagulable Lymph, which are naturally ex=pelled from the Body, or come away on ye least Motion.

As to the Prognostic— the Disorder is now become so habitual as makes it extreamly difficult to cure, however with Patience & Perseverance great Matters may be accomplished.—

I begin with Diet— This should be of the most nourishing kind— of easy Digestion, & sometimes mode=rately spiced— but always of a glutinating demulcent Nature; Calve's Feet Gellies— Rice=Milk —Rice=Pudding. Mush for eating—— Barley & Gum Arabic properly ~~ad~~ adapted for Drink &c. are good— Of Wines— Port and Claret are the best, whether alone or with Water—— A Variety of Food & Drink may be thought of on this Principle— Of Meat— I know of none better than good roasted Beef a little now & then, & Veal sometimes —

Chickens & the like. Pork is bad; but I suppose it is needless to mention this or hard Salt Meats as improper—

As to Exercise—This will be of great Service if the Patient errs not in Excess—let her begin with the most moderate & encrease it as her Strength will admit. Nor should I be deterred from it tho' it might at first seem to encrease the Disorder—Fresh Air especially in the Spring when impregnated with a Thousand agreeable Odors exhaling from the vegetable Kingdom, gives a Spring to the Solids & encreases the Tone of ye Vessels.

As to Medecines—These ought to be incrassat: Sedative & Astringent or corroborating—.

Of the first Class are the Gums of Arabic Tragacanth Olibanum, Sarcocolla—also the Icthycolla, Carno viperina &c.

Of the second are all Anodynes—Elix: Vitriol: &c.

Of the Third are a Variety of Roots & Barks—Rhubarb torrefyd—Cinnamon—but above all the Cort: Peru:—G: Sang: Dracon: is also good—Terra Japonic:—the Alumen should be used but sparingly—& the Chalybs ppt: but in small Quantities with Bitters in Wine—Be cautious in the Use of the Alumen—The R: Saturn: or Pulv: Styptic: Helvet:—

— because if they do not do good they may do harm —

Thus far in general — but I must observe the cold Bath, where proper exceeds all the rest the Cortex itself not excepted. As to Particulars — I would prescribe for Mrs Cotnam small Doſes of Rhubarb, so as to keep her Body open — Coſtiveneſs is hurtful by preſsing on the Iliac Veins & preventing the easy return of the Blood by the Veins from the Uterus & adjacent Veſsels — hence may prove one Cause of its Accumulation — Glaſs of Viper Wine should be ordered once or twice a Day — It may be used seperate or joined with bitter Wine —.

A few Drops of Elix: Vitriol: in a Tea of red Rose Leaves every Day two or three Times is proper.

Take of White Oak Bark two or three Handfuls with three or four Ounces of Alum & a Gallon of strong Vinegar boil them togather & when cold dip in a Flannel & put it round the Waste several Times Morning & Evening in the Manner of a Bath; — But in the Use of this there is Danger if Care be not used of tanning or spoiling her Linnen — A Strengthning Plaister to the Back should be used ——— Pills of Terpentine - Cort: Peruv: & Rhubarb may be given occaſionally — & the Cortex in Substance ——

When there is Fear of the Hæmorrhage coming on or when it actually takes place a Horrizontal Posture & Rest should be proposed — In this Case Anodynes are most useful also Elixr Vitriol: & Cloths dipped in the Decoction wch I have just ordered — or in Vinegar &c. would be very proper — If the Hæmorrhage could be subdued by this Means I flatter myself the other Symptoms would gradually vanish & among them even the Bulk of the Uterus would be lessened —

If her Strength permits, after the Use of some of the Medecines abovenamed — & the Hæmorrhage should decrease, by all Means advise a prudent Use of the Cold-Bath — first two or three Times a Week & to encrease the Use gradually —

I have been very diffuse here more so indeed than necessary but I would rather write any Thing superfluous than be thot defective —

Q: What do you call a solidum vivum or living Solid?

A– That wch is endowed wth a vital Principle –

Q: In what does the vital Power of a solid consist?

A– It consists in that Principle by wch it contracts upon the touch of any irritating Cause,

Q. What do you call an irritating Cause?

A– Whatever by its contact stirs up the vital Powers into Action, whether it be Acrimony or a sharp stimulating Body.

Q: How many Faculties may we conceive to be in a living Solid? –

A: Two. one is that of Feeling by wch it perceives the Action of a Stimulus – The other of moving whereby it opposes Force to Force by contracting itself & thence repelling that wch disturbed its quiet –

Q: To what is the Contraction proportioned?

A – To the Perception of the Stimulus.

Q: How is it when one Part of the Body only has a Stimulus applied Contractions or Movements happen in other Parts

A– There is a certain Sympathy or mutual Consent between the living Parts of the Body wch lend mutual Aid to each other & thereby one only being injured throws the other into common Contractions to repell the Enemy. ......

Q: Give an Example?

A: The Stomach & Head in Fevers sympathize the
Stomach & Kidneys in the Gravel

Q. Is the sentient Principle diffused thro' the whole
Body or where is it principally seated?

A: It appears to be as diffused as the nervous System
itself i.e. thro the whole Body; but shews itself
more active in certain Parts than others, The
Q. Heart is irritable in the highest Degree then the
Stomach & Guts are next in order after which
follows the Muscles.

Q. Is there any difference of this Perception or
Irritability?

A. It differs according to the various Age Sex, Tempe:
:rament & kind of Life we lead Custom and
Idiosyncracy occasion a difference.

Q: What do you call Idiosyncracy?

A: A Particularity of Constitution &c —

Q. Do you look upon the vital Principles to differ
from any other moving Power in the Body as
Elasticity, Attraction or Repulsion?

A. Yes certainly it is a Principle sui Generis with
which the Living Parts are endowed which is
governed by laws of Action particular to itself
& only to be known by Observation.

Q. What are the Faults or Diseases that may happen to the vital Principle?

A: It may be in Fault two Ways viz either from *Excess* or *Defect* of Sensibility the first we call *irritibility* the latter *Torpor*.

Q: In what State is it most healthy?

A The middle State between these two Extremes is most healthy.

Q: What do you call the Irritibility of the living Solids that imply Disease?

A. So great a degree of Sensibility in the living Solids as to throw them into violent Motions from a small Stimulus whereby the equal Tenor of their Functions will be disturbed.

Q. From whence proceeds such a morbid Irritibility?

A- It is difficult to mention all the Sources of it but for the most Part we are taught by Observation that a tender & delicate Structure of the Solids may be one source. A second may be a too great Tension of the Fibres together with a more springy Elasticity. 3dly A great Agility or Activity of the Senses. 4. A thin acrimonious State of the Humors. 5. A disturbed Motion of the Circulation. Youth, the female Sex, hot Climate high living & acute Diseases, as well as a hereditary Disposition may increase the Disorder.

Effects -

Q. What are the more general Effects of this too great Irritability of the living Solids?

A - A Vibration or Trembling of the Solids. Tension Spasm Convulsion, Anxiety, Pain, disturbed Secretion & Excretion ~~& [illegible]~~ of the Humors Obstruction, Inflammation, Fever, & an Injury to the Functions in general.

Q. From whence proceeds the Opposite Disease of Torpor? —

A - It supposes the Sensibility of the Solids to be diminished in various Degrees & hence the Nisus or Effort to produce Contraction arising from a due Degree of Stimulus in Health is so weak as does not suffice to produce those Motions which the Safety of the Animal — Oeconomy requires.

Q: From whence may it proceed? -

A. - Generally from 1st A Coarse Texture of Fibres 2dly Rigidity or Inflexibility of the Parts. 3dly Laxity & Inertness. 4thly A Watery or viscid Crasis of the Humors. 5thly A too sluggish Motion of them thro' ye Vessels.

It was just now mentioned that a too great Irritability produces

Spasms & Convulsion

Q. What do you mean by Spasm?

A. A Spasm is said to be a violent involuntary and inordinate Action of the moving Fibres.

Q. What may be the Cause of it?

A. Either Mechanical or Chymical Acrimony, immoderate Repletion, or Evacuation, a Disturbance of the circulatory System, universal or particular Affections of the nervous System, various Irritations of the muscles Tendons & Membranes.

A mutual Sympathy or Consent between the Powers of Perception & Motion are of great Influence whence Spasms frequently follow upon any immoderate Sensation, Pain, Anxiety or Perturbation of Mind as if Nature would attempt by the assistance of these Spasms to avert or get the better of that Evil of which ~~of~~ the Senses give Notice.

Q. How are Spasms divided?

A. Tetanos, Emprosthotonos, Opisthotonos.

Q What is a Tetanos?

A. That Kind of Spasm or Convulsion in wch the muscles continue immoveably rigid & out of the Power of ye Will.

Q. What is an Emprosthotonos?

a It is when the Body is bent forwards & becomes immovbly - rigid

Q— What is an Opisthotonos?

a It is when the Body is bent backwards & is in like manner immoveably rigid.

Convulsions

Q: What is meant by Convulsion & how is it distinguished from Spasm?

A: Those who distinguish Spasm from Convulsion call the former a continual Contraction of the Muscles: the latter they call an alternate Con:traction of the Muscles that is inordinate ~~invol~~: involuntary & violent — But it is the same thing whether we call them by the same or different Names for certainly they belong to one Genus of Diseases, are seated in the same Parts arise from the same Cause have the same Differences & are removed by the same Method of Cure.

Q: What are the general Indications of Cure?

a 1st To remove any foreign Body that may produce the Disease by lacerating wounding & remaining in any Part of the Body.

2dly By correcting any acrimony in the Fluids that may have brought on ye Convulsion

3dly By removing or altering the too great ~~Irrit~~ Irritibility of the nervous System or if the Nerves of the Part being half divided occasion the Convulsion they may be wholy divided if it can be done with safety —

4 If it proceeds from Hæmorrhage it must be stopped
& if it proceeds from too great Evacuation it must
be cured by mild wholesome Diet easily digested and
given frequently by little at a Time.

3. If it proceeds from Plethora Evacuants must be
used.

Methodus medendi

Q: What means are used to answer the first
Intention or Indication of Cure —

A. The various Instruments of Surgery — thus a thorn
under the Nail may produce violent Pain and
Convulsion it may be extracted either with a
Needle or Forceps — a Bullet in Gun Shot
Wounds require various kinds of Forceps accordg
to the nature seat & depth of the Wound —
A fish Hook or barbed Arrow may & often require
to be cut out or if they have pierced allmost thro:
the Part they may be pushed quite thro'

Q: What is to be done to answer the second Indication

A — If Acrimony abounds in the first Passages it
should be purged off — If it proceeds from Acid in the
Stomach it may be corrected by alkaline or Absorbent
Medicines — If from a particular kind of Acrimony
Antiscorbutic & Antiseptic Medicines must be used

or Acrimony in general may be corrected by diluents obtundents & inviscating Things by which it may be rendered inert or washed out of the System

Q: What do you advise as useful to answer the third Indication?

a- Relaxing & Emollient Applications & Anodynes.

Q- What in the fourth Indication —?

a Panada, Gruel, Broth, Milk Diet & the like

Q What in the fifth Indication?

a Bleed: is the principal with light moderate Diet

Gentlemen of the Hospital Medical Society,

With Pleasure do I comply with your Appointment, altho' the Subject neceſsary to be discuſsed on this Occaſion demands an abler Hand to set it in its true Attitude; so as to rouse those latent Principles in the human Breast, wh^t^ are formed for Knowlege the distinguishing mark of rational Beings: for the more we know, we become the more useful Members of Society, & Knowlege is only acquired by an aſsiduous & diligent Pursuit after it, consequently to be active & industrious in a Scrutiny: after Knowlege paints a Man formed for Society, & Improvement in his truest Color; who has a Prospect to live for the good of this Generation: whilst the inactive may justly be deemed a mere Statue, or Image not a Man endowed with a rational Soul.

It might be observed, that there is not a Man, who breathes, but has a particular Turn for some Calling in Life, whether for the liberal Arts or rural Industry; & we, Gentlemen, who are here convened have attested, what is our particular Turn of Genius, & by forming this Society our Inclination to improve it to the best Advantage — Man was formed for Society, else why is he endowed with

Reason

Reason & Speech above other Creatures? We need not here enter into a Recital of the unquestionable Advantages of Societies in general, as they are many when conducted with due Regulations — It is the most eſsential of a medical Society, that calls at present for Attention & Consideration —

When we consider the Frailties of human Nature & the many Changes & Accidents to wch Mankind are liable, we find an unbounded Field opens for the humane & industrious to exercise his Talents, that he may be capable to relieve the oppreſsed & restore Health the greatest Bleſsing in this transitory Life. & Cicero says we do not by any other Method approach nigher the Gods than in restoring — Health. To become adepts in this so laudable a Branch of Acquisition is worthy the Enterprize of every individual of this young Society, & all others who have turned their Faces towards the Temple of Æsculapius — We, as Students of Nature & Methods to restore disordered Nature to her pristine Vigor, should follow the most likely Methods to obtain our Purposes, among many is the Institution of this Society, from wch we promise ourselves to receive many valuable Advantages.

A Child, while he is held & supported by his Nurse's Hand, can perhaps walk with ease, & as it were with Steps of a Man; but no sooner is his Support with=

drawn

withdrawn, than his Fortitude is discovered to be but small: so it is with the young Student, when he is persuaded, he is master of this & the other Subject, & can treat it with Judgment; but no sooner has he attempted than he discovers to himself his own comparative Weakness & Inability, & what Need there is for a Director distinctly to point out the Disorder & curative Indications — Now Gentlemen, we sensible of the arduous Task, which lies before us, do promise to try ourselves by the Methods proposed in this Society, & each of us comply with that divine Sentence, wh. the Heathens supposed came down from Heaven γνωθι σ'εαυτον. This is one of the greatest Advantages, that we can possibly promise ourselves, & that which will necessarily accrue from it, which is Improvement: for we shall never learn unless we know ourselves. The greater Knowlege we have of any Art or Science, the greater is our Desire to know more, whether it be speculative, theoretic or practical. The Mind of man may justly be called one of those Parts which may be stiled unsatiable as well as the Eye or Ear.

Each Member is by the Rules of this Society to write a Medical Theses, in his Turn on any Subject, he thinks himself most capable to discuss. From this will arise many Advantages, as not only the Tho'ts he has already of the Nature of the Disorder, its Indications & Cure will be regularly arranged; but he will be immediately entred on a caref-

Scrutiny

Scrutiny of the most approved Authors, who have wrote on the Subject, & will consequently adopt the most rational & practical Observations, & imprint them on his Mind— In this his Enquiry will be recalled to mind the particular Treatment of the Disorder in every different Stage, & how Nature aſsisted by Art regularly timed have eradicated the prime Cause, & restored the Patient to his wonted ~~Vigor~~ Health. Altho' this advantage may appear to be particularly adapted to one Person; yet when we consider, that all are obliged to write in their Turn, it becomes common—

Again, this Thesis is to be read publickly at our appointed Meeting, which will be a great Advantage to every individual of this Society, as each Thesis will be a theoretico-practical Treatise on the particular Subject he has chosen, whether of Physic or Chirurgery. By this— Method we shall be able to discriminate Disorders, their Natures, Indications & Cures. From this we will not only have an Opportunity to lay up many useful Remarks in our common medical Treasury; but also have many others revived, that were almost sunk in Oblivion

Another Advantage not leſs than those already mentioned is our Improvement in Writing on medical Subjects— There are many Physicians who may be said to understand Disorders & their Treatment; yet are unable to communicate their Sentiments with Perspicuity in writing

writing when required, or necessity obliges them to communicate the Case to any of the Faculty.

Again, should any of us from being Juniors - explicate Disorders improperly, or indistinctly point out their Indications, & an injudicial Method of Treatment from such a collective Body we promise ourselves the Mistakes (if any) would not pass unnoticed, but be observed by a friendly Eye & therefore be rationally rectified.

These appear to be the principal Advantages, we hope will arise from this Attempt toward provement without entering into a minute Disqui: y, it would not answer our present Purpose.

If in this so laudable an Enterprize difficulties ld arise, that appear insurmountable let us keep View this accepted Maxim

"Nil tam difficile est quod non Solertia vincat".

And it is necessary to observe, that without Indus: in the Prosecution of our Studies we cannot even hope be good Physicians or Chirurgeons, therefore let us take ace's wholesome Advice which is

"Nocturna versate Manu versate diurna"

I am, Gentlemen, with due Respect
Yours,
John Archer

vania Hospital }
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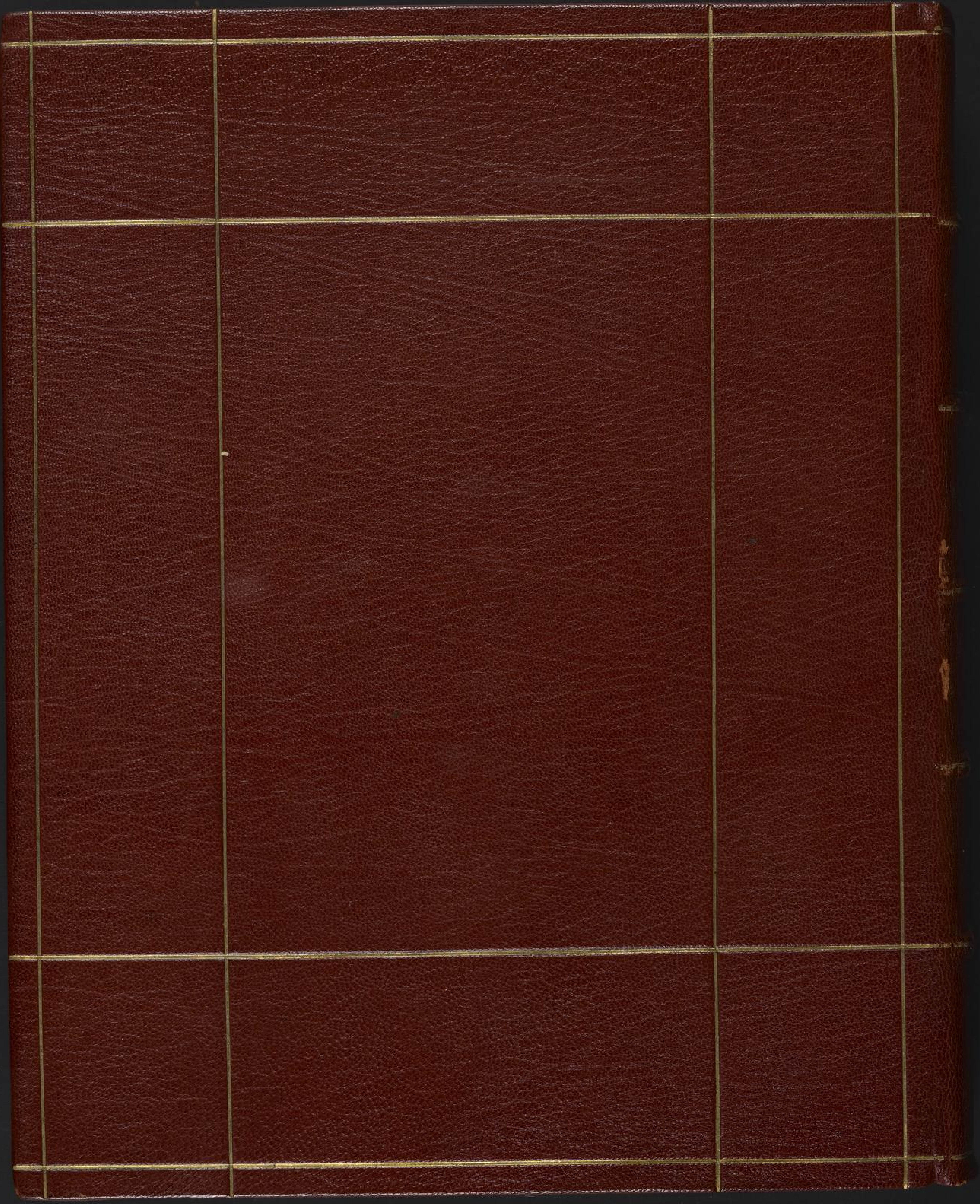

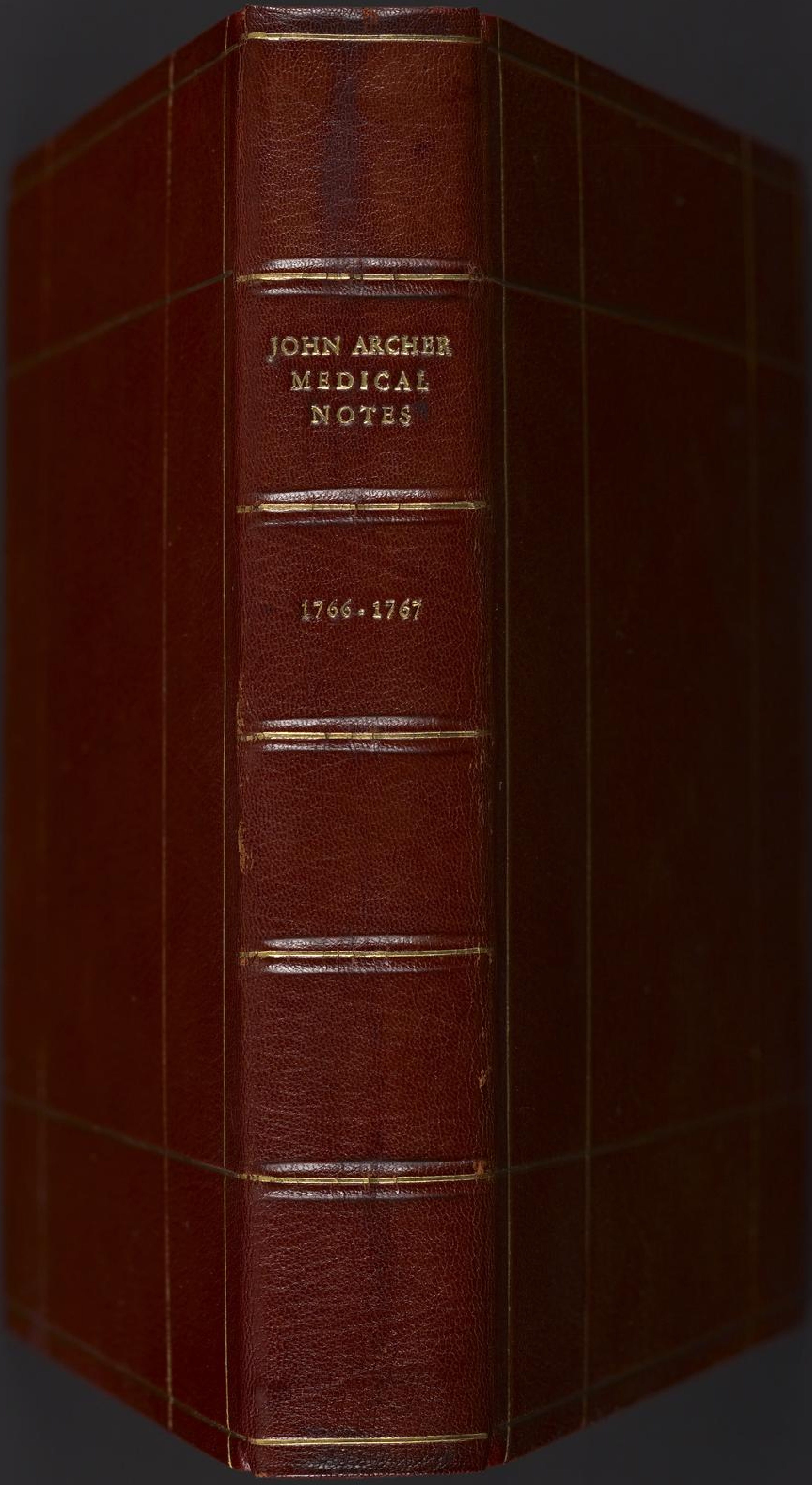

JOHN ARCHER
MEDICAL
NOTES

1766 - 1767